OUR HEALTH HABITS

WHITCOMB BEVERIDGE

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OUR HEALTH HABITS

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A COMPLETE COURSE IN CHILD HYGIENE FOR THE GRADES

By

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Made in U. S. A.

TO

The Public-School Nurses and Teachers

WHOSE INTEREST AND ENTHUSIASM
IN PROMOTING CHILD HEALTH
HAVE INSPIRED US TO WRITE THIS BOOK

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THE PREFACE

When the school bells of the United States ring, they call millions of children to their doors. These are children from the wealthiest homes, children from the homes of the great middle class, and children from poverty-stricken homes. These are your neighbors' children, your doctors' children, your lawyers' children; they are your street cleaners' and your hod carriers' children. The laws of the various states require that, unless private instruction is afforded, children shall be in school a certain part of each school year; yet a report from the Children's Bureau of Conferences, United States Department of Labor, Washington, D. C., gives us these statistics of school children: At least 1 per cent are mentally defective; over 1 per cent are handicapped by organic heart disease; at least 5 per cent have now or have had tuberculosis; 5 per cent have defective hearing; 25 per cent have defective eyes; 20 per cent at least are suffering from malnutrition; from 15 to 25 per cent have adenoids, diseased tonsils, or other glandular defects; from 10 to 20 per cent have weak foot arches, weak spines, or other joint defects; and from 50 to 75 per cent (and in many communities as high as 98 per cent) have defective teeth. As we visualize this situation, we realize that teachers and those concerned with public health are facing a tremendous health responsibility. We know that a certain number of the children who attend school are well, healthy children; on the other hand, we realize that a very great number of the children who attend school are far below the desired physical standard.

Our responsibility seems finally to resolve itself into keeping the well child well, and into bringing the child who is low physically up to standard. We believe that every child should be given a chance to

come into his highest physical efficiency through the formation of certain daily health habits. With this in mind, we are presenting this book to teachers, to school nurses, and to all others concerned with child health problems. We believe that every teacher is willing, if she is shown the way, to guide the children intrusted to her care into paths of healthy living. We have tried to guide her in this path and also to show her how to lead the children. Throughout the book we have presented notes to the teacher which introduce the various subjects. We do not presume to suggest that these supply the necessary subject matter for teaching, but we do hope that they will serve as a guide and that they will inspire the teacher to search for further material. The lessons planned for the younger children are designed to make the performance of health habits attractive and interesting; as the children progress in the grades, to develop reasons for the formation of these habits; finally, to present health to the upper-grade pupils as an ethical and a civic duty.

It is not our wish that the pupils be taught health as an end, but that they be taught health as a means through which they will be able to live more joyous and more abundant lives.

CHARLOTTE TOWNSEND WHITCOMB

THE INTRODUCTION

Our Health Habits was written in response to distinct needs. The experience of the authors in attempting to give children definite training in forming good health habits and in putting them into practice gave impetus to the preparation of the book.

Children need to know the laws of health. But it is not enough to know; they must obey them and put them into practice. It is our belief that provision is made in this text for knowing and doing. This is necessary if we are to have an efficient citizenry. The body must function well if the mind is to function best.

The growing child must have proper food, an abundance of fresh air, plenty of exercise, adequate rest, sufficient sleep, and must practice personal cleanliness if he would grow up healthy, hearty, and happy.

The teacher should know what to do and how to do it in order to attain this end. The lessons herein outlined are simple, definite, and direct. They are so planned that children are encouraged by them to practice definite health habits. Stories and rimes will be found to be a distinct aid. Practical experience in the use of these outlines has demonstrated that children enjoy health training. Teachers and pupils find enthusiasm in the pursuit of this course of study.

Every illustration in this text has a practical application. The illustrations are real.

The book will be helpful to parents and to all persons who have the responsibility of training and directing children, as well as valuable to all teachers.

The good health of an individual is a personal asset. The good health of many individuals constitutes a national asset.

It is the duty of the public schools to teach proper health habits to children in order to preserve and improve the national health.

The child who forms correct health habits increases his expectancy of life. Good habits of living contribute to the lengthening of life and increase one's happiness and efficiency. It is more important to prevent disease than to cure diseases.

As the children of today are trained in habits of right living, so should the men and women of tomorrow be able to live more intelligently, more healthfully, and thus enjoy a greater social heritage.

It is the hope and belief of the authors that this book will aid in bringing about this greater social heritage and will help in promoting the physical welfare of our people as a basis of greater intellectual activity and character development.

JOHN H. BEVERIDGE

OUR HEALTH HABITS

GRADE I

FOREWORD

To the teacher: The object of a program of hygiene throughout the first grade is to work toward establishing habits of healthy living. In planning the lessons we have aimed to make the teaching broad and vital enough in its scope to interest the children as a group, and yet detailed and practical enough to fit the needs of the individual child. For example, we encourage the use of milk as a perfect food for growing children. Much can be done through general teaching to create a vital interest in drinking milk. A few of the thin, pale, underweight children may not follow the group. It then becomes your duty to do individual work with these children. If there is a school nurse, you should engage her interest, and if necessary confer with older brothers and sisters or with the parents. If you are able to bring about better health habits in individual children through your own personal efforts, it will be time well spent and will afford you a great feeling of satisfaction. With the children in this grade we want to start building up a daily health standard based on promoting habits of personal cleanliness, of the selection of proper food, of daily exercise in the fresh air, of long hours of rest, and of cheerfulness. The general plan of the work is outlined at the end of the book.

We believe that a plan of daily inspection for personal cleanliness is the most effective method of stimulating interest. The children through this grade are too young to do this inspection; therefore the task will fall upon you. Throughout the entire year you should confine your inspection to the points in cleanliness which you can observe. Those habits, the effects of which are visibly evident to the teacher, should receive the first emphasis. Asking children of this age to report on too many health habits is often confusing to them. However, the various health habits should be discussed and the children encouraged to follow them. The children will enjoy having the third-grade inspectors do the inspection occasionally. By combining your own ideas with the suggestions given throughout the outline, you will undoubtedly find that the improvements in the general hygiene standard of your pupils amply justify the time given each day.

You should be the one to judge the standard of hygiene you have a right to expect. If you are located in a district where the children come from more fortunate homes, your duties will not be so great along lines of personal cleanliness. It will be possible to set your standard of cleanliness very high. You will be able to devote more time to establishing habits of proper food and of long hours of rest, as children from the better homes are often overindulged in their selection of food and their wishes for late hours. On the other hand, if your children come from less fortunate homes where they have practically no access to modern conveniences and probably little or no urging from their

parents, the standard of hygiene must of necessity demand less at the beginning. We suggest that the children at first be inspected for clean faces, hands and nails, and handkerchiefs. These points of cleanliness should be encouraged daily and, as results are noted, more demands should be added until the pupils gradually work up to the expected standard of personal cleanliness.

You will be delighted to note the general improvement made by individual children following your first suggestions. To bring others, however, up to even the minimum standard of cleanliness will require much time and patience.

We have asked you to weigh your pupils once each month throughout the year and to take their height twice a year. It will probably be more convenient to measure them in October and in March. If you have not been accustomed to weighing and measuring the children, you may feel that the task will demand a great deal of your time. We have found that, with careful organization, thirty-five children can be weighed and measured in about thirty minutes. This time is estimated on the basis of the teacher's doing the weighing and measuring and an upper-grade pupil's making the necessary records. With this in mind, we have allowed two class periods each month for the work. Children should be directed to remove heavy coats or sweaters unless these are worn to replace necessary clothing; in such case, you may allow for extra weight. The children need not remove their shoes. The possible humiliation because of holes in the stockings, as

well as the extra time used to remove shoes, should be considered.

If the child is within the 10 per cent margin above or below average weight, all other things being satisfactory, there is no reason for special concern. The main point to be emphasized by the teacher is that the "growing child should gain in weight every month; he should not lose or remain the same." If a child is definitely underweight or if he fails to gain in weight month after month, his parents should be urged to have him examined by a physician. A monthly weight record is an important health guide. An effort should be made to send this record home each month. For suggestions refer to pages 489–491. Classroom weight charts should be kept in the schoolroom. They may be made by the teacher; or they may be obtained at a minimum cost from the American Child Health Association, 370 Seventh Avenue, New York, or from the Department of the Interior, Bureau of Education, Washington, D. C. The article on "Malnutrition," page 492, should be an excellent guide in suggesting reasons for individual underweight. Through your general work in hygiene you should be able to do much toward the improvement of many cases of underweight children. Do not permit the weigh-day to drift into a mechanical procedure. Keep the children looking toward it with great interest. Remind them a few days ahead of the day that it is coming. Caution the underweights to continue drinking milk and to get to bed early. Display interest and delight when gains in weight are made.

In the lessons throughout this grade we have asked you often to make posters picturing the health lessons. It will add much to the interest of the pupils if you will select a wall space and call it a health corner. Keep the best posters pertaining to health in this space and have frequent discussions of them. (See Figure 66, page 552, for a suggestion for such posters.)

We have presented the same subjects during the same months throughout the grades so far as it seemed practicable to do so. For example, in October we teach milk as a food. In the lower grades, we encourage its use daily; in the upper grades, we try to impress the children with its value in relation to growth and health. Thus, as the lower-grade child is being encouraged to drink milk, the upper-grade child is learning why it is a perfect food. By interesting all the children in a family in the same subject at the same time, we hope to create a health interest which will be carried into the home.

In considering the lessons as outlined for the first grade, we have made every effort to make them practical for children in any community. Possibly in the management of your program you can best work these lessons in through your language, your reading, or your other class subjects.

Please allow us to emphasize the point that the progress of the health standard of your room depends very largely upon your enthusiasm in the development of the morning inspection.

Subject matter has been prepared for two class periods each week.

FIG. 1. THE FIRST DAY OF SCHOOL

SEPTEMBER

CLEANLINESS

Stories on cleanliness that appeal to children

"The Lovely Bird," *from Cho-Cho and the Health Fairy*, page 29. Macmillan Company, 60 Fifth Avenue, New York.

"How Billy Black Turned White," by Maynard Downes, *Story Tellers' Magazine*, Vol. V, page 472.

LESSON I

Standard of cleanliness

To the teacher:

In teaching health habits to children, we feel that the best method of approach is first to encourage habits of personal cleanliness. The public schools should have a right to expect a reasonable standard of cleanliness of the hundreds of children who enter their doors. While this responsibility is accepted by many parents, there are other parents who fail to recognize it. This failure may be due to carelessness, to poverty, to a lack of health knowledge, or to the heavy demand of other duties upon the mother. It is our duty as health teachers to set certain standards of cleanliness and to encourage the children to meet our requirements. In teaching children to keep clean, we should try to make the process interesting and the results desirable. We feel that this can be accomplished through the use of stories, rimes, demonstrations, and the daily morning inspection for cleanliness.

Tell the story "The Little Toy Soldier," which you will find on page 8.

The Little Toy Soldier

He was the bravest, finest Toy Soldier in all the shop, and he was wonderfully dressed. You never, never could guess what color his trousers were. No, not khaki, although our soldier boys dress that way; not scarlet nor green; they were blue with nice black stripes along the sides. And his coat was green, with beautiful shiny gold buttons on it. His little round hat sat on one side of his head, and was fastened under his chin with a little strap. You never, never could guess what was under his nose—a tiny black mustache that curled tight at the ends! And how do you think his mouth was painted? In a smile. And he smiled and smiled all the while.

One day a big man came into the store and took him away to live in a house with a little boy named Charles. The little Toy Soldier liked it there the first day, but when night came, the mother said, "Did you brush your teeth, Charles?"

"No, I don't want to brush my teeth. It is too much bother." And what do you think? Charles scowled and pouted.

"Well, well," said the little Toy Soldier, "I do not want to live with a little boy who doesn't want to brush his teeth."

He couldn't get away just then, but the next morning Charles left him on the front porch rail. He tumbled right down to the sidewalk below. A small boy named Harold came along, picked him up, and played with him all day. That night at supper Harold's mother said, "Did you wash your hands, little son?"

"No, I don't want to wash my hands. Just little girls wash their hands all the time."

"Well, well," said the little Toy Soldier, "I am not going to live with a little boy who doesn't want to wash his hands before he eats."

He waited until the next day when Harold put him in his pocket and started to school. The little Toy Soldier dropped

out of his pocket down to the curb below. He lay there a while, when James came along, picked him up, and took him home.

At lunch time that day James said, "I want coffee, Mother." And what do you think? He drank a great big cup of coffee.

"Oh," said the little Toy Soldier, "I do not want to live with a little boy who drinks coffee."

He was standing on the library table near the wastebasket. He tumbled into it and was carried out with the waste paper and dumped into a box at the rear of the house. A man came along with a wagon and took the paper and the little Toy Soldier to a factory. Here men were sorting paper.

"See the little Toy Soldier!" said one big man. "I shall take him home to my small son."

Now this little boy could not walk so very well because he had hurt his foot. He tried to be cheerful anyway, and helped his mother prepare the evening meal.

When his father came home he said, "Have you had a nice day, son?"

"Yes," said the little boy, "I can mark all my health chores tonight, and when I went to the store a man asked me the way to the depot. I tried to be polite when I told him."

"Well," said the little Toy Soldier, "this is the kind of boy I should like to live with. I believe I shall stay here all the time."

I haven't heard, so I suppose he is still living there.—Adapted from "The Little Toy Soldier." Courtesy of THERESA DANSDILL, "Story-Telling for Patriotism," *Health Training in Schools*.

LESSON II

Retell the story "The Little Toy Soldier."

Develop a health lesson on cleanliness, emphasizing the following points:

1. Why we should wash our hands before each meal
2. Why we should clean our finger nails

Show the children a cake of pure soap. Emphasize the importance of using *pure soap*. It is surprising to know the number of children who use a laundry soap, which is injurious to the skin.

LESSON III

Demonstration: Hand-washing

To the teacher:

We are presenting a demonstration on hand-washing first and are following it with another demonstration, "How to Get Ready for School." Two class periods have been given for these demonstrations. We do not want to confuse the children by giving them too much information at one time. In selecting a child for this demonstration a better effect is obtained by cleaning up a very untidy one. Do not permit him or the other children to feel that he has been selected because of his untidiness, but rather that, because he has done something particularly well, he merits the honor of being demonstrator.

Preparation:

1. Basin on low stand or chair
2. Two cloth or paper towels
3. Cake of pure soap
4. Nail brush
5. Nail file

Demonstration (see Figure 8, page 64; Figure 9, page 68):

1. Have a child come to the front of the room and, rolling his sleeves above his elbows, demonstrate the correct method of washing hands.
2. Emphasize the importance of drying the hands and arms thoroughly. Why? Clean the finger nails.

3. Have the child fold towels neatly, empty water, rinse soap and basin, and leave them in order for the next lesson.
4. Have the children cheer for the clean child.

LESSON IV

Demonstration: How to get ready for school

Preparation:

1. Basin of water on low stand or chair
2. Two towels (explain that each child should have a towel of his own)
3. Pure soap
4. Nail brush
5. Nail file
6. Comb and brush
7. Cloth to wipe shoes
8. Toothbrush
9. Clean handkerchief

Demonstration:

1. Roll sleeves high above elbows and turn collar band as low as possible. (Explain that at home the boys' blouses and the girls' dresses should be removed.)
2. Wash hands according to previous demonstration. Emphasize the importance of drying them thoroughly. Clean finger nails. Get a basin of clean water. (Explain that the water in which they wash their hands is not clean enough for their faces; that they should have clean hands and clean water when they wash their faces and eyes.)

3. Wash face, neck, and ears; rinse in clean, cool water and dry thoroughly.
4. Wipe shoes.
5. Show the toothbrush and explain that soon they shall have a lesson on brushing the teeth, as it is very important.
6. Comb hair.
7. Arrange sleeves and collars. Have the children cheer for the clean, healthy boy.

LESSON V

Teach the following songs:

MOTION SONG

This is the way we wash our hands
Wash our hands,
Wash our hands,
This is the way we wash our hands,
So early in the morning.

"This is the way we dry our hands, etc."
"This is the way we clean our nails, etc."
"This is the way we wash our face, etc."
"This is the way we comb our hair, etc."
"This is the way we wipe our shoes, etc."
"See, I have a handkerchief, etc."
"This is the way we run to school, etc."

That's why we're happy all the day,
All the day,
All the day,
That's why we're happy all the day
From morning until bedtime.

LESSON VI

Morning inspection

The Foreword to this grade on page 2 gives suggestions for conducting the morning inspection.

FIG. 2. MORNING INSPECTION BY THE TEACHER

Since the children have had the demonstrations and the story on cleanliness, this seems to be a suitable time for you to begin the inspection. The children should sit in position with their hands on their desks and their handkerchiefs in sight. You should pass down the aisles and inspect each child; or, if you care to, you may have the children pass by in line, showing their hands and displaying their handkerchiefs. The minimum standard should require clean faces, hands, and nails and clean handkerchiefs. The children who meet the requirements should be complimented, and those who fail should be given helpful suggestions.

LESSON VII

Sing the "Motion Song" (Lesson V). Allow only those who have handkerchiefs to sing, "See, I have a handkerchief."

LESSON VIII

Teach the following rime:

"Baa, baa, black sheep
  Have you any wool?"
"Yes sir! Yes sir!
  Three bags full.
One for the king, sir,
  And one for the queen,
And one for all children
  Who keep themselves so clean."

OCTOBER

FOOD (MILK); POSTURE

FIG. 3. POSTER ON MILK

Stories on milk that appeal to children

"The Wee, Wee Man," by Carolyn Sherwin Bailey, from *Firelight Stories*, page 127. Milton Bradley Company, Springfield, Massachusetts.

Mother Goose Milk Rhymes. National Dairy Council, 910 South Michigan Avenue, Chicago, Illinois.

Suggestion for morning inspection

Make a jack-o'-lantern from a yellow pumpkin. When every child in the room meets your requirements in cleanliness, allow the lantern to be placed in a conspicuous place for the day.

Emphasize the importance of carrying a clean handkerchief or cloth daily, as this is the season for coughs and sneezes to begin.

LESSONS I AND II

Weigh and *measure* the children. Place the record on the classroom weight chart. (See illustration, Figure 52, page 489.) Send a record of the weight home with the child. (In the Foreword to this grade, we have included two paragraphs on the process of weighing and measuring the children.) The article on "Malnutrition," page 492, will help you to determine reasons for individual losses and gains. For the average weight of boys and girls of this age, refer to the Weight-Height-Age Tables, pages 487, 488.

LESSON III

Milk

To the teacher:

Milk is the best and most important food for growing children. No other food can take its place. Children should be encouraged to drink some milk every day. We feel, however, that we are not justified in teaching the children to drink a quart of milk daily, as the diets vary greatly in the many homes which our teaching reaches. Let the minimum standard be a glass of milk with each meal. Encourage the children to drink the milk at the close of the meal. If it is

taken at the beginning of the meal, it often satisfies their hunger, and the vegetables and other foods, which are equally as important, are not eaten. (If information contrary to the above has been given a child by a physician, such information should be recognized as denoting an individual need of the child.) Read the article "All about Milk" by Dr. Milton J. Rosenau, page 499.

Coffee and tea have no food value and are often injurious to growing children; therefore children should not drink them. It is appalling to know the great numbers of children who are allowed to drink coffee and tea. Perhaps the reason for this is largely a lack of knowledge, on the part of the parents, of the harmfulness of these drinks. We teach that it is "the growing child" who should not drink coffee and tea. We emphasize "the growing child," hoping that this teaching may prevent the child's feeling that because mother and father drink them he may also do so. Such emphasis also justifies the parents who drink these beverages in encouraging the children not to drink them.

Read or tell the following story:

The Boy and His Pets

I want to tell you a story of a little boy who lived in the country. He did not have any little boys or girls to play with him. His playmates were a pussy cat, a little red hen, and the nicest, cleanest piggy that you ever saw. The little boy had a fine time playing with them, and was very fond of his friends.

One morning the little boy had just had a great big cup of coffee for his breakfast. He liked it so well that he thought he would give his friends some coffee for their breakfast, too.

He poured out a saucerful of coffee for the pussy cat, a little tin dish full of coffee for the little red hen, and a great big bowl full of coffee for the piggy, because piggies are always so hungry, you know.

When the pussy cat saw her breakfast she said, "Meow! Meow! What is this?"

"Cluckity, cluck, cluck!" said the little red hen. "I do not know."

But the piggy said, "Oow, oow! Let us taste it and find out."

The pussy cat tasted hers and she said, "Meow, meow! It is coffee. Coffee is bad for pussy cats and I do not want any." So she did not drink hers.

The little red hen tasted hers and she said, "Cluckity, cluck, cluck! Coffee is not good for chickens, either. I do not want any." So she did not drink hers.

Then the piggy tasted his. Now, you would think piggy would surely drink his, because piggies are always so hungry. But he just tasted his and said, "Oow, Oow! Coffee is bad for piggies, too; and I'm so hungry! Oh, I'm so hungry!" But he did not drink his.

Just then the little boy came out and he said, "What is the matter, Mrs. Pussy Cat? You did not drink your breakfast."

"Meow, meow!" said the pussy cat. "I cannot drink coffee. It is bad for pussy cats. Please bring me a big saucerful of—"

What do you think the pussy wanted for her breakfast? Yes, she wanted a saucerful of milk.

The little red hen said, "Cluckity, cluck, cluck! Please take this coffee away and bring me some oats for my breakfast."

The piggy ran up and said, "Oow, oow, I am so hungry! Please bring me some bread and milk for my breakfast."

When the little boy had given them all just the breakfast they wanted, he said, "O Mrs. Pussy Cat, is that why you are so nice and fat—because you drink milk?"

And the pussy cat said, "Meow, meow! That is just the reason."

The little red hen said, "Cluckity, cluck, cluck! See how strong I am, and I eat oatmeal!"

"I'm strong and fat, too," said piggy, "and I like bread and milk."

Then the little boy ran into the house and said to his mother, "Mother, if coffee is bad for pussy cats and little red hens and piggies, I think that it must be bad for little boys, too. I do not want any more coffee. May I please have a glass of milk to drink and a big bowl of oatmeal with milk on it? I want to grow strong and fat and healthy, just like my friends, the pussy cat, and the little red hen, and the piggy."—By courtesy of the Iowa Tuberculosis Association. (Adapted by M. S. FURBECK from "The Little Red Hen," Brooklyn Bureau of Charities.)

LESSON IV

Discuss the story "The Boy and His Pets" and develop the health lesson: "I should drink milk every day. I should not drink tea or coffee."

LESSON V

Survey to find the number of children who drink milk every day. Encourage them to drink at least a glass or a cup of milk following each meal.

Survey to find the number who drink coffee or tea. Discourage the use of coffee and tea because:

1. They are not foods.
2. They often keep children from growing.
3. They often keep children from being happy and healthy.

LESSON VI

Milk bottle race

Secure two milk bottles. Paste a picture of a healthy boy on one and a rosy-cheeked girl on the other. The

names of the girls who drink milk every day and who do not drink tea or coffee should be placed in the bottle with the healthy girl. The names of the boys who meet this same requirement should be placed in the bottle with the healthy boy. Have a race between the boys and the girls to see which group can get all of their names into the bottle first. Check the list every morning.

LESSON VII

Have the children learn the following rime:

Little Miss Muffet
Sat on a tuffet,
Drinking her milk, they say.
Along came Boy Blue,
And he had milk too.
They said, "We drink milk every day."

LESSON VIII

Repeat the rime "Little Miss Muffet."

Have the winning group sing to the others the following song:

(TUNE: "*The Mulberry Bush*")

This is the way we drink our milk,
Drink our milk,
Drink our milk,
This is the way we drink our milk,
Every night and morning.

This is the way it makes us grow
Makes us grow,
Makes us grow,

This is the way it makes us grow,
Every single day.
[*Stretching up tall*]

Make a poster on milk for the health corner.

Posture

To the teacher:

A healthy, robust child of this age, as a rule, naturally maintains a correct posture. Faulty posture in children under eight or nine years of age is rarely due to careless habits in sitting and standing, but is almost always the result of poor health habits or of physical defects which lower the vital resistance. The habits that are largely responsible for poor posture are improper food habits, chronic constipation, irregular hours of rest, and not enough fresh air and exercise. The physical defects that contribute to this condition are diseased tonsils, adenoids, defective vision, and other defects of childhood. You will notice that poor postures are manifested by sharp shoulder blades, flat chests, and prominent abdomens. In working toward the correction of such postures, it is important to make an effort to improve the general health habits of the child, especially his habits of food selection, of rest, and of fresh air. If obvious physical defects exist, efforts should be made to have the parents consult the family physician.

Careful attention should be given to the seating of the pupils. Make sure that you do not have an unusually small child placed in a seat which is so large that his feet touch the floor only with effort and that the desk causes him to raise his right shoulder out of line and drop his left shoulder when he places his arm on it to write. On the other hand, take notice of the overgrown child in your room to see that his knees are not crowded under his desk and that his right shoulder is not lowered out of line as he places his arm to write. Let your interest be to *have the seat fit the child.* (See Figure 64, page 550, and Figure 65, page 551.)

NOVEMBER

FOOD; ELIMINATION

Stories on food that appeal to children

"The Magic Oat Field," from *Cho-Cho and the Health Fairy*, page 9. Macmillan Company, 60 Fifth Avenue, New York.

"The Witch, Indigestion," from *The Most Wonderful House in the World*, chapter v, page 43. J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

Suggestion for morning inspection

For each row in which every child has met your requirements, place a Thanksgiving turkey on the front desk for the day. (These may be cut from cardboard or may be pictures cut from magazines.) Emphasize the importance of wearing wraps to and from school and while at play.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Send a record of each child's weight home to his parents. Have those children who have gained in weight since last weigh-day stand, and permit the rest to cheer for them. Try to determine the reasons for individual losses and gains. Emphasize the value of food and rest as important factors governing growth.

LESSON III

Vegetables

To the teacher:

In teaching food habits to children of this grade, we should keep before us the food rule: "I should eat vegetables, fruits, and cereals, and I should drink milk." Vegetables form an essential part of the child's diet. There is little danger of any of the fresh vegetables not agreeing with him. They are important guards against constipation. Hunger is sometimes due to the absence of vegetables in the diet, and children who constantly crave food are satisfied when more vegetables are given. Valuable ones are peas and beans, all kinds of summer greens, onions, squash, cauliflower, asparagus, carrots, raw cabbage, lettuce, celery, and others. Each child should be able to name at least six vegetables that he likes and eats whenever they are placed before him. He should eat at least two kinds daily. In many homes where meat, potatoes, and pastries are the principal articles of food, the children have had so few vegetables that they often fail to recognize even the common ones. In presenting the lessons on vegetables teach the children to identify at least six or eight of the important ones. This may be done through the use of pictures, or the fresh vegetables may be brought to school and discussed. One teacher worked out the plan of having the children bring vegetables on Friday. The school facilities made it possible for her to make and serve vegetable soup. This was done in a district where it was much needed, and it proved to be an important health lesson.

Through the class lessons, discuss the food that children should eat. Avoid classifications of "bad foods" as far as it is practicable to do so, as such classifications are often taken by the parents as criticisms. For example, when a child tells you that he eats pancakes, sausage, and coffee for breakfast, you should encourage him to eat fruit and cereal and to drink milk. Emphasize the right kinds of food; speak

FIG. 4. POSTER (PICTURES CUT FROM MAGAZINES)

of the others as "not so good." Through this method you will create a sensitiveness to the right kinds of foods. Read the article on "Food," page 514.

Permit the children to name the different kinds of vegetables they eat. If possible, show them a variety of seasonable vegetables and discuss these vegetables with them.

Ask the children to cut pictures of vegetables from magazines and bring them to school.

LESSON IV

Discuss the pictures of vegetables which the children bring. Select the best ones and mount them. (For suggestions, see Figure 4, page 24.) Place the most attractive ones in the health corner. See Figure 66, page 552, for arrangement of the health corner.

LESSON V

Fruits

To the teacher:

Fresh and stewed fruits are important food for growing children. They should be encouraged to eat fruit daily.

Children of this age, as a rule, recognize the common fruits, as apples, oranges, plums, peaches, and others.

Have the children name the kinds of fruit they eat. Emphasize the importance:

1. Of eating some fruit every day
2. Of thoroughly washing or peeling fruits

Have the children cut pictures of fruit from magazines.

LESSON VI

Discuss the pictures of fruit cut from magazines and mount the best ones. Place these in the health corner with the pictures of vegetables.

LESSONS VII AND VIII

Teach the following rimes:

There was an old woman who lived in a shoe.
Though she had many children, she knew what to do.
She fed them on carrots and spinach green,
And healthier children you never have seen.

An apple round and red and sweet
Is just the thing for me to eat,
And prunes and dates and raisins, too—
Oh, any fruit at all will do.

Elimination

To the teacher:

Attention should be directed to regular, daily habits of attending the toilet. Constipation is one of the frequent ailments of children, and, if allowed to continue, it is responsible for many illnesses. It is almost entirely preventable and, unless there is some serious obstruction, it is curable. Because of the different opinions of teachers as to the presentation of the subject, we are permitting you to teach it as you choose. With children in this grade we believe that it should be as frankly presented as any other of the health habits. Let us urge you not to omit the teaching of a health lesson which, if neglected, so generally affects the health of the child.

The important facts to be taught are:

1. A child should have at least one complete elimination daily—two would be better.

2. He should attend the toilet at regular times each day—preferably after breakfast and after the evening meal.
3. He should eat the foods daily that help develop this habit. (The best foods are leafy green vegetables, plenty of fresh fruit, and coarse cereals.)
4. He should play out in the open air daily.
5. He should drink at least four glasses of water each day.

DECEMBER

FOOD (*Continued*); HANDKERCHIEF DRILL

Stories on food that appeal to children

"The Little Vegetable Men," from *Cho-Cho and the Health Fairy*, page 23. Macmillan Company, 60 Fifth Avenue, New York.

Tony, the Little Fruit Man, by Charlotte E. Wilder. Perry Mason Company, Commonwealth Avenue and St. Paul Street, Boston, Massachusetts.

Suggestion for morning inspection

Sketch a Christmas tree with green crayon on a blackboard where it may remain. For each row in which every child has come up to your required standard of cleanliness, sketch a bright candle or other decoration on the tree. Aim to have it decorated by Christmas. The same plan may be carried out with a real Christmas tree.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Send a record of each child's weight home to his parents. Have those children who have gained in weight since last weigh-day stand, and permit the rest to cheer for them. Try to determine the reasons for individual losses and gains. Emphasize the value of food and rest as important factors governing growth.

LESSON III

Cereals, breads, and grain products

To the teacher:

Cereals, breads, and grain products are important foods in the diet of the growing child. They contain some of the principal elements of growth and are important guards against constipation. Because the ones that require cooking are more nutritious proportionately, we encourage them as the best and cheapest to be served for breakfast. (By this we mean that there is more food value in a cup of cooked oatmeal than in a cup of corn flakes or puffed rice or other dry cereals.) The prepared or "dry" cereals are preferably served as a supper dish with fresh or stewed fruit added to them. Only one teaspoon of sugar should be used on a bowl of cereal, with plenty of whole milk. Some of the good cereals are oatmeal, cream of wheat, wheatena, corn mush, cracked wheat, corn flakes, puffed wheat, bran, and others.

Encourage the children to eat dark breads such as whole wheat, bran, graham, and whole rye.

Have the children name the different cereals and dark breads that they eat. Discuss these.

Have them bring pictures, cut from magazines, of the cereals and of dark breads that are good for boys and girls. Mount the best ones and place them in the health corner.

LESSON IV

Develop the health lesson: "I should eat vegetables, fruits, and cereals and I should drink milk."

LESSON V

Teach the following rimes:

Little Jack Horner sat in the corner
Eating Christmas breakfast with joy.
'Twas oatmeal he had that made his heart glad.
What a healthy and wise little boy!

"Mistress Mary, quite contrary,
What is it makes you grow?"
"Lots of milk and butter and bread,
Oranges, plums, and apples red,
And vegetables all in a row!"

LESSONS VI AND VII

A health Christmas tree

Decorate a health Christmas tree. Have the children place on the tree healthful foods, toothbrush, comb and brush, soap, and other objects pertaining to health. In connection with this health lesson, impress upon the children the importance of not overeating of sweets and rich foods and of observing early bed hours during the Christmas season.

LESSON VIII

Handkerchief drill

To the teacher:

A handkerchief drill should be given in order to encourage these health habits:

1. The correct process of blowing the nose
2. The importance of covering up each cough and sneeze
3. The importance of carrying a clean handkerchief or cloth daily
4. The proper care of the handkerchief

Procedure:

1. Have the children take clean handkerchiefs or cloths in hand.
2. With mouth slightly open, press one nostril closed and blow gently three times through the other one.

FIG. 5. READY FOR A HANDKERCHIEF DRILL

This process is to be practiced with both nostrils. Then fold the handkerchiefs, with the soiled portions inside, and put them in a clean place.

3. Repeat the drill at least twice each week. This will impress upon the children the necessity of carrying a clean handkerchief or cloth daily.
4. The object in teaching the child to press one nostril closed while he blows the other one is to prevent forcing the air up through the nose and into the ears, as this may cause sinus or middle-ear infection. Explain this in a simple manner to the children. They should be taught to keep their handkerchiefs out of sight. They are often tempted to chew on them or play with them, which is a most unhealthful habit. It is helpful for you to keep a supply of white cloths or paper napkins for children who do not have handkerchiefs.

JANUARY

MOUTH HYGIENE

Stories on teeth that appeal to children

"Mouth Hygiene Tableware," from *The Most Wonderful House in the World*, chapter xii, page 115. J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

"Old Grouchy Man Toothache," from *Health Training in Schools*, by Theresa Dansdill. National Tuberculosis Association, 370 Seventh Avenue, New York.

Suggestion for morning inspection

Cut a large figure of a snow man or make a snow man of cotton for each row. When every child in a row meets your requirements, place a snow man at the front of the row for the day. Continue to encourage the children to wear warm wraps to and from school and while at play.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Send a record of each child's weight home to his parents. Have those children who have gained in weight since last weigh-day stand, and permit the rest to cheer for them. Try to determine the reasons for individual losses and gains. Emphasize the value of food and rest as important factors governing growth.

LESSON III

Care of the teeth

To the teacher:

The care of the teeth is one of the most important problems from the standpoint of health and personal appearance. The investigations of the teeth of school children show from 50 to 75 and in some communities even as high as 98 per cent defective teeth; yet a normally healthy mouth is possible for every child. This condition is largely dependent upon the selection of proper food, upon brushing the teeth properly, and upon exercising of the jaws which depends largely upon thorough mastication of food. The selection of foods that grow and maintain teeth is of foremost importance to the growing child and to the adult as well. The best foods for tooth development and preservation are:

Milk: every day
Fruit: fresh and cooked fruits
Cereals: especially whole grains with very little or no sugar
Vegetables: spinach, peas, carrots, cauliflower, celery, lettuce, asparagus, and other fresh vegetables

In order to encourage thorough mastication, the children should be given hard foods such as coarse breads or toast and coarse-grain cereals. Children of this age should be taught the proper process of brushing their teeth. They must be encouraged to brush them at least twice daily—before breakfast and before bedtime. They should be taught that it is necessary to visit their dentist every six months, not because of decay, but to prevent decay.

Tell the story of "Johnny-O and His Pets," which you will find on the following page. Note that the illustration on page 36 gives a suggestion for dramatizing the story.

Johnny-O and His Pets

Jack Rabbit, Woolly Lamb, and Shaggy Pony were all worried. It was Saturday morning and Johnny-O had not come out to play.

"What can the matter be?" asked Jack Rabbit. "Do you suppose Johnny-O is sick?"

"Well, he's not in bed," said Woolly Lamb, "for I spied him when I was eating my breakfast. He came to the window to look out, and I noticed that he was all dressed."

"Did he call to you?" eagerly asked Shaggy Pony.

"No," said Woolly Lamb. "He didn't look very happy. He held his hand up to his face just as if his face hurt."

"Dear me!" said Shaggy Pony. "Something must be wrong with Johnny-O." And Shaggy Pony began pawing at the ground with his right front hoof just as he always did when things worried him.

Jack Rabbit stopped frisking around, and settled in a gloomy little bundle up close to Woolly Lamb. They all looked very sad, for it was a terrible thing to have the sun shine on a Saturday morning and Johnny-O not with them. Pretty soon Towser Bow-wow nosed his way out through the door and came running up to join their group.

"Oh, here comes Towser Bow-wow!" said Shaggy Pony. "He's sure to know what has been going on inside the house."

"Good morning, Towser Bow-wow," called Jack Rabbit, Woolly Lamb, and Shaggy Pony all together. "Why are you coming all alone from the house this morning? What has happened to Johnny-O?"

Towser Bow-wow came up looking very sober. "Good morning, friends," he said. "Johnny-O cannot play with us this morning. He must go to see the dentist."

"The dentist! What is a dentist?" asked Jack Rabbit, Woolly Lamb, and Shaggy Pony all at once.

FIG. 6. JOHNNY-O VISITS THE DENTIST (DRAMATIZATION)

"A dentist," replied Towser Bow-wow, "is a man who fixes people's teeth. I heard Mother Dear talking to Big Daddy at the breakfast table. Johnny-O has been a naughty boy and has not been brushing his teeth twice a day as Wise Teacher told him to do. And now one of his teeth has a pain in it and Johnny-O must go to the dentist to have it fixed."

"Oh, dear!" said Jack Rabbit. "Johnny-O has always been so careful to keep his face and hands clean, why *didn't* he keep his teeth clean, too?"

"And he always kept his clothes clean and carried a clean handkerchief each day," chimed in Woolly Lamb. "Why didn't he keep his teeth clean?"

"And I know," said Shaggy Pony, "that he always takes a bath more than once a week. Why, oh, why hasn't he kept his teeth clean?"

"Well, it certainly is too bad," said Towser Bow-wow, "but we must play without him this morning. Come on, I'll race you all to the stone wall where Johnny-O planned to play soldiers with us this morning."

Off the four of them started. And they reached the stone wall just as Johnny-O and Mother Dear came out of the house and started for the dentist's.

Johnny-O saw Jack Rabbit, Woolly Lamb, Shaggy Pony, and Towser Bow-wow all at the stone wall. Oh, how he wanted to be with them! Two big tears rolled up to his eyes, but he swallowed hard and the tears went away.

"I won't be a baby," thought Johnny-O to himself. "I know it's my own fault that I can't play with my pets this morning. After this I shall always brush my teeth twice a day as Wise Teacher has told me to do."

And the best part of the story is that Johnny-O kept his promise to himself. Every morning after he got up he brushed his teeth. And every night before he went to bed he brushed

them again. When the next Saturday morning came around, and the next, and the next, Johnny-O came running from the house with Towser Bow-wow. And then all of them—Jack Rabbit, Woolly Lamb, Shaggy Pony, Towser Bow-wow, and Johnny-O—raced each other to the big stone wall.—NATALIE BASSETT DUMONT.

LESSON IV

Have the children retell in their own words the story "Johnny-O and His Pets." Develop the health lesson: "I should brush my teeth before breakfast and before bedtime."

LESSON V

Inspect the mouths of the children. Select several children who have well cared-for teeth and have them show their teeth to the other children. Emphasize the point:

Clean teeth don't decay.
Use your toothbrush
Twice each day!

LESSON VI

Develop these points:

1. The teeth need exercise to make them strong and to keep them from decaying.
2. The best exercise you can give them is to chew your foods thoroughly.
3. Some of the foods that make you chew are coarse breads, coarse cereals, and meat.
4. Name the foods that grow teeth straight and strong.

LESSON VII

Survey to find the number of children who have toothbrushes at home. Show the children a toothbrush and emphasize the following points:

1. A brush should not be too large.
2. A brush should have stiff bristles.
3. A brush should be kept clean.
4. Each child should have his own brush.

Explain that a little salt or soda on the brush is quite as good for the teeth as toothpaste. Encourage those who do not have brushes to get them.[1]

LESSON VIII

Toothbrush demonstration

The object in presenting a toothbrush demonstration is to show the children the proper method of brushing their teeth. Have a pupil from one of the upper grades show the children how he brushes his teeth.

During the demonstration emphasize these points:

1. Jaws should be parted and facial muscles relaxed to allow free and easy movement of brush.
2. We brush inner surfaces, chewing surfaces, and outside of teeth.
3. We brush upper teeth down and lower teeth up.
4. We brush back teeth, side teeth, front teeth.

Ask four or five children to bring their brushes to school for the next lesson. Remind them to place the brush in an envelope or to wrap it in a clean paper.

[1] Some toothbrush companies or your local drug store may supply you with brushes at a minimum cost. In most cases the children who find it difficult to buy a brush will be able to pay a few cents for one if you can supply them.

Many of the large toothpaste companies will supply you generously with samples of their paste at your request.

FIG. 7. PLAYGROUND SUPERVISION

FEBRUARY

MOUTH HYGIENE (*Continued*); PLAYGROUND SUPERVISION

Stories on teeth that appeal to children

"Morning in Health Land," from *A Journey to Health Land*, by James M. and Annie L. Andress. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

The Tinies That Live in a Tube, by Mrs. Walter McNab Miller. E. R. Squibb & Sons Company, New York.

Suggestion for morning inspection

Cut valentine hearts of red paper. Allow each child who has met your requirements to have a heart pinned on him or attached to his desk for the day.

Playground supervision

To the teacher:

You should give some time and attention to the supervision of the playground. Make an effort to have every child play out of doors during the recess periods unless his physical condition is such that he should not be outdoors. Children who do not have warm enough clothing should not be allowed to play outdoors in extreme weather. The children should be encouraged to play games and keep active on the playground. Your personal supervision adds much to the value of their recreation period. If your time does not permit this supervision, perhaps a committee of three pupils from the upper grades will supervise for you. You should direct them as to the duties you wish them to perform.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Send a record of each child's weight home to his parents. Have those children who have gained in weight since last weigh-day stand, and permit the rest of the pupils to cheer for them. Try to determine the reasons for individual losses and gains. Emphasize the value of food and rest as important factors governing growth.

LESSONS III TO VIII (*Inclusive*)

Toothbrush demonstration

To the teacher:

From *Alice in Wonderland* we learn that "the best way to explain it is to do it." This is true in teaching children of this age how to brush their teeth.

We believe that the process of brushing the teeth is one of the most important of health lessons. It is astonishing to know the number of children and adults as well who have little or no appreciation of the proper care of the teeth.

The presentation of a toothbrush demonstration to a group of thirty or forty young children does not seem a satisfactory method. To teach the proper use of the toothbrush to children of this age requires more or less individual attention. For example, many of the children, in handling the brush, hold it as a fork or spoon rather than grasp it in the position that permits them to brush their teeth with ease. Individual attention is required to correct this habit. We suggest that for the remainder of this month the process of brushing the teeth be taught to groups of not more than four or six children at a time. On one day designate the ones who are to bring their brushes. The next day take this group where you have access to running water, or arrange a basin, a pitcher of water, and individual drinking cups

in a convenient place. (See Figure 62 on page 548.) If you do not have toothpaste, sprinkle a little salt or soda over each brush.

We realize that opinions vary among dentists as to the proper method of brushing the teeth. The following process, however, seems to be quite generally recognized as best:

Order in which teeth should be brushed:

1. Brush inner surfaces first.
2. Brush chewing surfaces.
3. Brush outer surfaces:
   a. Back teeth
   b. Side teeth
   c. Front teeth

Method of using the brush:

1. Open the mouth enough to allow an easy motion of the brush.
2. Use a rolling motion of the wrist, not the force of the whole arm.
3. Brush upper teeth down.
4. Brush lower teeth up.
5. Include the gums on the strokes—brush vigorously.
6. Use at least ten strokes to each movement. (By this we mean ten strokes to the back teeth, ten to the side, and ten to the front teeth in both the upper and the lower jaw.)
7. Rinse the brush often during the process.
8. When you have finished brushing, rinse the mouth several times, forcing water back and forth between the teeth.

Have the first group you have instructed show the other children their clean teeth. Continue these drills until every child in the room has been shown how to brush his teeth.

Teach these rimes:

Sing a song of clean teeth
At morning and at night,
Twenty healthy little teeth
Strong and shining white.
Every day I brush them
To keep them nice and clean.
Aren't they a set of pearls
Fit for any queen?

"A diller, a dollar, a very fine scholar,
What makes you look so nice?"
"My face, hands, and hair
I attend to with care
And my teeth every day I brush twice."

MARCH

REST; CHEERFULNESS

Stories on rest that appeal to children

"Santa Claus Sleep Story," by Carolyn Sherwin Baily, from *Firelight Stories*. Milton Bradley Company, Springfield Massachusetts.

"The Wake-Up Story," by Eudora Bumstead, from *Health Training in Schools*, by Theresa Dansdill. National Tuberculosis Association, 370 Seventh Avenue, New York.

Suggestion for morning inspection

Draw a square on the board divided into twenty parts representing the twenty school days for the month. The object is to make a red and white quilt. On the days on which every child meets your approval during the morning inspection, place a red or white block in with crayon. If any one fails, the block remains black.

LESSONS I AND II

This is the month in which the children should be *measured* as well as weighed. Record the height and weight on the classroom weight chart. Send the height-weight record home to the parents. Allow those children who have gained weight some special privilege. Try to determine the reasons for individual losses and gains. Emphasize the value of food and rest as important factors governing growth.

LESSON III

Hours of sleep:

To the teacher:

One of the very important habits governing child health is long and regular hours of rest. While we must depend upon the mother to enforce this habit, we can do much to encourage it. Children of this age should have at least ten hours of rest; twelve hours would be better. Encourage the underweights especially to observe an eight o'clock bedtime. Lack of rest is often the important factor governing their underweight. Some children continually report late or irregular hours of rest. You may be able to gain home coöperation by talking to older brothers and sisters or to parents. Often they do not realize the importance of long hours of rest.

Survey to find the number of children who go to bed at eight o'clock or earlier. Teach this rime:

Wee Willie Winkie
Runs through the town,
Upstairs, downstairs,
In his nightgown.
Crying at the windows
In tones loud and deep,
"Are the children in their beds
Getting ten hours' sleep?"

LESSON IV

Play the following game:

WEE WILLIE WINKIE[1]

Wee Willie Winkie runs through the town,
Upstairs, downstairs, in his nightgown.

1. The children sit erect in their seats.

[1] By courtesy of the *Ohio State Course of Study in Hygiene.*

2. Wee Willie runs up and down the aisles.

Crying at the windows
In tones loud and deep.

3. Wee Willie claps his hands, which is the signal for the children to go to sleep. He places both hands to his mouth as if calling.

"Are the children in their beds
Getting ten hours' sleep?"

4. Wee Willie taps one of the sleepers lightly on the shoulder.
5. He chases him, trying to catch him before Wee Willie reaches a goal in the room, when he is safe.

LESSON V

Bedtime duties

Develop these points: *How we should get ready for bed:*

1. Remove all day clothing
2. Wash face, hands, ears, and neck.
3. Brush teeth.
4. Open windows so as to have plenty of fresh air.

Teach the following rime:

Hickory, dickory, dock!
The mouse ran up the clock.
"I'll see if it is time," he said.
"For little mice to be in bed."
Hickory, dickory, dock!

Hickory, dickory, dock!
"To bed!" said Mr. Clock.
"For, Mousie dear, you surely know
That sleep will help to make you grow."
Hickory, dickory, dock!

LESSON VI

Have the pupils cut pictures on sleep from magazines. Discuss the pictures and have the children tell short stories of the pictures.

Organize a Sandman Club. Those eligible to membership are the children who go to bed at eight o'clock. The names of the members of the club should be written on the blackboard.

LESSON VII

Mount several of the best pictures on sleep and place them in the health corner.

LESSON VIII

Cheerfulness

Present a lesson on cheerfulness, developing the health lesson: "I should try to be cheerful, clean-minded, and helpful to others." Have the children tell how they can be helpful: (*a*) in school; (*b*) on the playground; (*c*) at home.

APRIL

WATER; EVERYTHING UNCLEAN AWAY FROM EYES, NOSE, AND MOUTH; CARE OF THE EYES

Stories on water that appeal to children

"Hated Cold Water," from *The Foolish Fox*. A. L. Burt Company, 114–120 East 23d Street, New York.

"How the Singing Water Got to the Tub," from *Here and Now Story Book*, by Lucy Sprague Mitchell. E. P. Dutton Company, 681 Fifth Avenue, New York.

Suggestion for morning inspection

Cut out a tree from paper and mount it on cardboard. Secure some stickers of birds. When every child comes up to the expected standard, place a bird on the tree. The object is to cover the branches of the tree with birds.

LESSONS I AND II

Weigh the children. Record the weights on the classroom chart. Send the record of each child's weight home to his parents. Allow those children who have gained in weight since last weigh-day to stand, and permit the rest to cheer for them. Try to determine the reasons for individual losses and gains. Emphasize the value of food and rest as important factors governing growth.

LESSON III

Water

To the teacher:

Children require at least four glasses of water each day. It should be taken preferably upon rising and before each meal. If water is served at mealtime, care should be taken that it is not used to "wash down" the food. It should be taken after the food has been thoroughly chewed and swallowed. Thirst is sometimes mistaken for a craving for food, and a habit of eating at all times is developed. Children should not gulp water, but should drink it slowly.

Tell the following story:

Billy Boy

Billy Boy had been playing in the field all morning. He was hungry and ran to the house for some doughnuts.

"Please, Mother, I should like two of them to take with me to the pasture."

"Take them, little son, but be sure to wash your hands before you touch them."

Now Billy Boy usually minded his mother because he loved her dearly, but today he was in such a hurry that he forgot. He hurriedly took the two doughnuts and ran back to the pasture, where he had piled high a fortress of leaves. He sat on the cushiony walls and contentedly ate them. The warm sun shone on him, and he nestled closer down in the leaves.

His pet pussy cat came slowly down the path.

"Come and sit with me, Gray Pussy. Sing to me and purr a story for me."

"Indeed, I shall not," said Gray Pussy. "Your face is dirty and you didn't wash your hands before you ate. Oh, no, no! I like to stay with little boys who wash their hands and faces."

She walked away, jumped up on the fence, and began to wash her face with her paws.

Gallop and trot, gallop and trot, came a little black pony down the path.

"Why, little Black Pony, where have you been? Do stop and play with me."

"Not today," said little Black Pony. "It is nearly dinner time and I am hungry, but I do want a drink before I eat. I always drink water before I eat if I can get it. Good-by."

And he galloped merrily along down the path.

Just then a Scotch collie came marching along.

"Stop and play with me, Collie Dog," said Billy Boy.

"Not today," said Collie Dog. "There are so many things I must do to help others—drive the cattle home, look after the sheep, keep the pigs away from the apple barrel your father had to leave in the orchard. No, Billy Boy, it is more fun to help others today. Some other time I will play with you."

Bang! Billy Boy tumbled over backward and laughed. He had been asleep on his leaf fortress and the animals hadn't really talked to him at all. But as he went to the house he said, "Gray Pussy, I will wash my hands before I eat; Black Pony, I will remember to drink a glass of water before my meals; and, Collie Dog, I want you to know I am going in right now and ask Mother to let me help her."

And he did.—Used by courtesy of the Iowa Tuberculosis Association.

LESSON IV

Permit the children to retell the story "Billy Boy." Develop three lessons taught in the story, but emphasize especially the lesson: "I should drink a glass of water upon rising and before each meal."

Teach the following rimes:

See-saw, Margery Daw,
You are a good, little daughter.
You shall have more than a penny a day
Because you drink plenty of water.

Jack be nimble, Jack be gay,
Jack drinks water every day.

LESSON V

Dramatize the story "Billy Boy."

LESSON VI

Teach the children to fold paper drinking cups. For directions, see page 498.

Demonstrate drinking slowly.

LESSON VII

Unclean things away from eyes, nose, and mouth

To the teacher:

Children in this grade become very careless about putting pencils and other objects into their mouths. Schools differ in their regulations governing the use of pencils and rulers. It commonly happens that pencils are collected at night and passed around in the morning. This necessitates the handling of pencils by various children. Rather than to try to keep pencils separated or sterilized by the many suggested methods, it seems more logical to teach children to keep pencils, rulers, pens, and *everything* unclean away from the mouth. If this practice, along with the habit of washing hands thoroughly before handling food, could be enforced, much of the danger of infectious diseases would be eliminated.

Inspect all pencils for tooth marks. Develop the health lesson: "I should keep everything unclean away from my eyes, nose, and mouth."

Teach these rimes:

Little Jack Horner sat at his desk
Getting his pencil to write.
"I'll keep you away from my mouth," he said,
"So you'll always be clean and bright."

Everyone loves a healthy boy
Whose cheeks are rosy red,
Who keeps hands away from nose and mouth
And spends ten hours in bed.

LESSON VIII

Care of the eyes

To the teacher:

The children should be taught some of the simple but important lessons on the care of their eyes. In developing a lesson, these are some of the points to be emphasized:

1. Children should wash their eyes daily with clean warm water.
2. They should wipe them with a clean towel or a clean cloth. They should never rub their eyes with soiled hands or soiled handkerchiefs.
3. Each child should have his own towel and his own wash cloth.
4. Children who have been fitted with glasses should be encouraged to wear them daily unless directed to do otherwise by a physician.
5. Children should be taught that "nigger shooters," bows and arrows, bean shooters, and air guns are dangerous playthings. They should be warned not to play with these.

6. Also teach them that sharp-pointed scissors, knives, and other pointed instruments should not be handled. (The above-mentioned articles have been responsible for many serious accidents to the eyes.)

Read "The Responsibility of a Teacher" on page 524.

Present a lesson on the care of the eyes based on the points mentioned above.

MAY

SUGGESTIONS FOR VACATION

Suggestion for morning inspection

For each row in which every child meets your requirements, place an American flag on the front desk.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Send a record of each child's weight home to his parents. Have those children who have gained in weight since last weigh-day stand, and permit the rest to cheer for them. Have a discussion on things we should do during vacation to help us gain. Emphasize the value of food and rest as important factors governing growth.

LESSON III

To the teacher:

> The lessons for this month should be presented so as to carry over the health lessons learned during the school year into the summer vacation months. These habits should become a part of the child's life whether at home or in the school.

During this month have the children make health books or small posters to take home to their parents. For suggestions, see the illustrations on pages 560–562, Figures 74–76.

Cleanliness

Review the health lesson: "I wash my face, neck, ears, and hands and I clean my finger nails each day. I wash my hands before each meal."

Develop these points:

Keeping clean during vacation:

1. Helps us to keep healthy and happy.
2. Pleases mother.
3. Pleases our neighbors and those who see us at play.

We should clean up every morning just as though we were getting ready for school.

LESSON IV

Care of the teeth

Review the health lesson: "I brush my teeth before breakfast and before bedtime."

Develop these points:

1. Why we should keep our teeth clean
2. The foods we eat to make them grow
3. The foods that exercise our jaws

Brushing the teeth should be part of the morning clean-up.

Encourage the children to visit the dentist during the summer to find if their teeth need attention.

LESSON V

Vegetables

Review the health lesson: "I try to eat wholesome food, including vegetables, fruits, and cereals, and I drink milk. I do not drink tea or coffee."

Develop these points:

1. Have the pupils name the vegetables that grow in the garden or that are in the summer markets that are good for children.
2. Encourage them to eat peas, string beans, tomatoes, onions, lettuce, greens of all kinds, carrots, beets, and raw cabbage.
3. Emphasize the importance of eating two kinds of vegetables *every day*.

LESSON VI

Fruits

Have the children name the summer fruits that are good for them. Discuss these points:

1. The fruits must be ripe.
2. They must be thoroughly washed or peeled.
3. Children must not share bites.

Eat some fruit every day.

LESSON VII

Milk

Discuss these points:

1. Milk is one of our best summer foods.
   a. It must be kept covered and clean.
   b. It must be kept cool.
2. We should drink a glass of milk with each meal.
3. Children should not drink tea or coffee.
4. Milk, water, cocoa, and lemonade or any fruit drinks are good summer drinks.

LESSON VIII

Rest

Review the health lesson: "I sleep ten hours or more every night and I keep my windows open."

Discuss these points:

1. We need ten hours' rest in the summer as well as in the winter.
2. Even though it does not get dark so early, we must go to bed soon after supper or dinner.

Have the class dramatize "Wee Willie Winkie" from the March outline.

GRADE II

FOREWORD

To the teacher: Our object throughout the second grade is to continue and to increase the child's interest in his daily health habits. We also want him to develop pleasure and independence in the performance of these habits. Although we realize that your teaching must be largely general, we know that there is necessity for individual work. The greater number of children will become very enthusiastic in working toward the health requirements. The few who do not are often the ones who need health encouragement most; therefore they should be given individual attention. For example, many of the sturdy ones are already milk drinkers or will be easily encouraged to drink milk. Some of the undernourished ones will seemingly take little interest in their food habits. It then becomes your duty to give such children special attention. If there is a school nurse, she should assist with individual cases, and the interest of older brothers and sisters and of parents should also be engaged. Our plan of work is based upon building up a daily health standard which requires habits of personal cleanliness, mouth hygiene, proper food, fresh air and exercise, rest and cheerfulness. Refer to the general plan of the work at the end of the book.

A plan of daily inspection for personal cleanliness and other health habits seems to be the most effective

method of stimulating interest. Throughout the first semester, children in the second grade are too young to do this inspection themselves; therefore the task will fall upon you. You should confine your inspection to those points of cleanliness the results of which you can see. Care should be taken not to demand too much of the children in the beginning. Discouragement is the quickest way to suppress enthusiasm. Even though the morning inspection includes only points in personal cleanliness, the other health habits should be discussed and encouraged. By combining your own ideas with the suggestions given throughout the outline, we feel that you will find that the improvements in the general hygiene standard of your pupils amply justify the time given to the morning inspection. After the first half of the school year the children are usually independent enough to do the inspection with some assistance from you. A girl may be chosen to inspect the girls, and a boy for the boys, or an inspector may be chosen for each row.

In setting the standard of hygiene you are the one to decide upon the habits which should be included. If you are situated in a district where the children come from more fortunate homes, your duties will not be so great along the line of personal cleanliness. You will be able to devote more time to the development of habits of food and rest, as children from the better homes are often overindulged in their selection of food and their wishes for late hours. On the other hand, if your children come from less fortunate homes where they have practically no access to modern conveniences

and probably little or no urging from their parents, the standard of hygiene must of necessity demand less at the beginning. We suggest that the inspections should at first require clean hands and face, finger nails, and clean handkerchiefs. When the greatest number of children meet these requirements, they should add more health habits until they gradually come up to a high standard of personal cleanliness. Many children improve rapidly after early suggestions are made. Others require much time and patience before they reach even the minimum standard of cleanliness.

We have asked you to weigh the pupils once each month and to take their height twice a year. We have named October and March as probably the most convenient months for the measuring. If you have not been accustomed to weighing and measuring the children, you may feel that this task will demand a great deal of your time. We have found that, with careful organization, about thirty-five children can be weighed and measured in thirty minutes. This time is estimated on the basis of the teacher's doing the weighing and measuring and an upper-grade pupil's making the necessary records. With this in mind, we have allowed two class periods each month for the work. Unusually heavy coats or sweaters should be removed unless they are worn to replace necessary clothing. In such case, the teacher may allow for extra weight. The children need not remove their shoes. The possible humiliation of the child because of holes in his stockings, as well as the extra time used in removing shoes, should be considered.

If the child is within the 10 per cent margin above or below average weight, all other things being satisfactory, there is no reason for special concern. The main point to be emphasized by the teacher is that the "growing child should gain in weight every month; he should not lose or remain the same." If a child is definitely underweight or if he fails to gain in weight month after month, his parents should be urged to have him examined by a physician. A monthly weight record is an important health guide. Have each child write his weight on a slip of paper to take home. Classroom weight charts should be kept in the schoolroom. See illustrations on pages 489–491. They may be obtained at a minimum cost from the American Child Health Association, 370 Seventh Avenue, New York; or from the Department of Interior, Bureau of Education, Washington, D. C.; or they may be made by the teacher; there may be a local health agency in your city which will supply you with them. The article on "Malnutrition," on page 492, will be a guide in suggesting the reasons for individual underweights. Through your general work in hygiene you should be able to do much toward the improvement of many of the cases of underweight children.

In the lessons throughout this grade we have asked you often to make posters picturing the health lessons. It will add much to the interest of the pupils if you will select a wall space and call it a health corner. See illustration on page 552. Keep the best posters pertaining to health in this space and have frequent discussions of them.

Throughout the grades we are presenting the same subjects during the same months as far as it seems practicable to do so. For example, we teach cleanliness through all the grades during September. The lower-grade children learn to form habits of cleanliness; the upper grades learn *why* we keep clean. Consequently, in homes where there are several children much health coöperation will be created through a common understanding, and much health education will be carried into the home.

In planning the lessons throughout the second grade, we have tried to make the work such as would be practical for children in any community. You may be able to correlate these lessons with your language, reading, or other class subjects.

The progress made by the children in their daily habits of health depends largely upon the interest in personal health created through the morning inspection.

Subject matter has been prepared for two class periods each week.

FIG. 8. GETTING READY FOR SCHOOL (DEMONSTRATION)

SEPTEMBER

CLEANLINESS

Stories on cleanliness that appeal to children

The Pig Brother, by Laura E. Richards. Little, Brown & Company, 34 Beacon Street, Boston, Massachusetts.

"The House the Children Built," from *Cho-Cho and the Health Fairy*. Macmillan Company, 60 Fifth Avenue, New York.

LESSON I

Standard of cleanliness

To the teacher:

There seems to be a growing interest and pride among parents in the personal appearance of their children who attend the public schools. At the same time, we realize that there are also many homes in which the parents do not seem concerned with the personal appearance of their children. Because of the latter group, the public school should establish certain standards of cleanliness and work toward bringing the children up to these requirements. Through the lessons on cleanliness which are presented in September, we have made an effort to make personal cleanliness vital and appealing to the children. May we suggest that you be very careful in your criticism of the personal appearance of a child of this age. His home conditions may be such as to render his keeping clean a great hardship. A little help and encouragement from you may be very much appreciated by the less fortunate child.

Tell the story "Johnny-O and His Health Chores," which you will find on the following page.

Johnny-O and His Health Chores

Jack Rabbit, Woolly Lamb, and Shaggy Pony were all standing by the fence waiting for Johnny-O to come home from school. Towser Bow-wow had gone to meet Johnny-O. Jack Rabbit, Woolly Lamb, and Shaggy Pony all wished they could be with Johnny-O as much as Towser Bow-wow. Towser Bow-wow went into the big house whenever he liked. He saw Johnny-O early in the morning and just before he went to bed at night. He knew just lots about Johnny-O that the others didn't know. He was very nice, though, about telling things to the rest of them. Just that morning, before it came time for Towser Bow-wow to dash down the street toward Johnny-O's school, the four pets had been talking together. Towser Bow-wow had been telling about the things Johnny-O had learned at school.

"Yes," Towser Bow-wow had said, "Johnny-O is learning to read this year. And he is learning to write, too. And he makes beautiful little boxes and chairs and beds out of paper. He brings all these things home to Mother Dear, and she hugs and kisses him for them."

"Let's ask him to show us those things," suggested Woolly Lamb. "Do you think he would, Towser Bow-wow?"

Towser Bow-wow certainly thought Johnny-O would show all his school treasures to his little friends. "But I wish you could see how carefully Johnny-O gets ready for school now," he added. "He says that he has learned so many nice things at school that he just loves to do them."

"What do you mean?" asked Jack Rabbit. "What sort of things?"

"Well, you see," said Towser Bow-wow, "each morning he washes his face, his neck, his ears, and his hands just as carefully as he can. He brushes his teeth so they'll keep clean and white. He's always sure that his clothes are clean and neatly

brushed. And he combs his hair till it looks soft and smooth. And at the very end he takes a clean handkerchief from his dresser drawer and puts it in his pocket."

"Oh, goody!" said Woolly Lamb. "I'm glad Johnny-O tries to be so clean. I know it is the right way, for I've heard Big Daddy say so."

"I know something else about him," spoke up Shaggy Pony. "He always washes his hands before he eats. Don't you remember that Mother Dear gave him an apple the other day when he came home from school? Well, Johnny-O wouldn't eat the apple until he had washed his hands. Did he learn that in school?"

"Of course he did," said Towser Bow-wow. "And he learned, too, that he must take a bath more than once a week. He sleeps with his windows open at night, and he knows that he must brush his teeth before he goes to bed. That's very important, you know. He must brush his teeth twice a day, once when he gets up and once before he goes to bed."

Just then they all heard a shout down the street, and Johnny-O came walking quickly along with Towser Bow-wow at his side. How pleased he was to see Jack Rabbit, Woolly Lamb, and Shaggy Pony all there to meet him! And how proud they were of their little master who was learning so much at school!

"Hello there!" called Johnny-O, as he turned in at the gate. "I haven't time to play with you now. I must get my face and hands washed before lunch. But after lunch I'll come out and we'll all play together till school time."

And into the house with a "whoop" ran Johnny-O, Towser Bow-wow following close on his heels. Jack Rabbit, Woolly Lamb, and Shaggy Pony all turned quietly away to get their own lunches. They wanted to be ready to play with Johnny-O when he should come out again.—Natalie Bassett Dumont.

FIG. 9. READY FOR SCHOOL

LESSON II

Retell the story "Johnny-O and His Health Chores" and develop the health lesson: "I should wash my face, hands, ears, and neck and I should clean my finger nails."

LESSON III

Demonstration: How to get ready for school

To the teacher:

In presenting a demonstration on how to get ready for school, try especially to encourage the children to be self-dependent. Permit the children to discuss how they get ready for school. It is a good object lesson to choose an untidy child as the demonstrator. In selecting him do not permit him or the other children to realize that he has been selected because he is unkempt, but rather that you are honoring him for some good trait which he may possess.

The children should be taught that it is easier to go through the cleaning-up process before going to bed and to see that their clean clothing and clean handkerchief are ready for the next day. Then when they arise in the morning a cold splash over the face, neck, and arms, washing the hands, combing the hair, and brushing the teeth will prepare them for breakfast and for school.

Preparation for demonstration (see Figure 8, page 64):

1. Basin of water on low stand or chair
2. Two cloth or paper towels (each child should have his own towel and wash cloth)
3. Pure soap
4. Nail brush
5. Nail file
6. Comb and brush

7. Cloth to wipe shoes
8. Toothbrush
9. Handkerchief

Aim:

1. To show the child how to clean up
2. To encourage independence and thoroughness

Presentation:

1. Why should we wash our hands before each meal or before handling food?
2. Why should we clean our finger nails?
3. Show the children a cake of pure soap.
4. Emphasize the importance of using *pure soap.* (It is surprising to know the number of children who use a laundry soap, which is injurious to the skin.)

Demonstration:

1. Roll sleeves high above elbows and turn collar band as low as possible. (Explain that at home the boys' blouses and the girls' dresses should be removed.)
2. Wash the hands.
3. Emphasize the importance of drying them thoroughly. Clean the finger nails.
4. Get a basin of clean water. Tell the pupils the reason.
5. Wash face, neck, and ears, rinse in clean cool water, and dry thoroughly.
6. Comb hair.
7. Wipe shoes.

8. Show the toothbrush and explain that soon the children shall have a lesson on brushing the teeth.
9. Arrange sleeves and collars. Have the children cheer for the clean boy.

LESSON IV

Teach the following rime:

LITTLE BOY BLUE

Little Boy Blue, come blow your horn,
The children are ready for school this bright morn.
They've all washed their faces,
They've washed their hands, too,
And their teeth have been brushed,
Oh, hurry, Boy Blue!

LESSON V

Have the children retell in their own words or dramatize the story "Johnny-O and His Health Chores."

LESSON VI

Repeat the rime "Little Boy Blue."

Morning inspection

The Foreword to this grade includes a paragraph on the reasons for the morning inspection. Now that the children have had their lessons on personal cleanliness, you should begin this inspection. Have the children sit in position with their hands on the desks and their handkerchiefs in sight. Pass down the aisles and inspect each child. Some teachers have the pupils pass by in

line showing their hands and displaying their handkerchiefs. The children who meet the requirements should be complimented and those who fail should be encouraged to do better. (See Figure 2, page 13.)

For the next lesson have the children cut from magazines pictures suggesting cleanliness.

LESSONS VII AND VIII

Discuss the pictures that were brought by the children. Select the best ones, mount them on cardboard, and place them in the health corner. For suggestions see the illustration on page 552.

OCTOBER

MILK; POSTURE

Stories on milk that appeal to children

Chubby Children and How to Grow Them, by Winifred Stuart Gibbs. New York Chapter of the American Red Cross.

"The Wonderful Window," from *Cho-Cho and the Health Fairy*, page 15. Macmillan Company, 60 Fifth Avenue, New York.

Suggestion for morning inspection

Make jack-o'-lanterns of small pumpkins or cut them from yellow paper for each row of children. When every child in a row has met your requirements, hang a jack-o'-lantern on the front desk of that row for the day.

LESSONS I AND II

Weigh and *measure* the children. Place the record on the classroom weight chart. (See Figure 52, on page 489.) Send a record of the weight home with the child. (In the Foreword to this grade we have included two paragraphs on the process of weighing and measuring the children.) The article on "Malnutrition," page 492, will help you to determine reasons for individual losses and gains. For the average weight of boys and girls of this age, refer to the Weight-Height-Age Tables, pages 487, 488.

LESSON III

Milk

To the teacher:

Milk is a perfect food; it contains all of the elements of growth; every growing child should drink some milk every day. Often parents do not appreciate the value of milk as a food for children, and children of this age are almost too young to be impressed with its value. However, we can do much toward encouraging them to drink milk through stimulating group interest. We believe that the minimum standard should require a glass of milk at the close of each meal. Emphasis is placed upon teaching children to drink their milk after they have eaten the other foods. There is a tendency among many children to drink the milk first, and because this satisfies their hunger they refuse to eat the vegetables and other foods which are equally as important. (A child should be encouraged to drink some milk every day unless he has been directed not to do so by his family physician.) Read the article "All about Milk," by Dr. Milton J. Rosenau, on page 499.

Because coffee and tea have no food value and are often injurious to the growing child, it is our duty to teach children that they should not drink them. It is not surprising that children of this age are given coffee and tea to drink when we know that many mothers, because of a lack of health knowledge, allow the infant in arms to sip coffee and tea from her spoon. This habit and an appetite for these drinks grow with the child. There seems to be some variance of opinion as to the injurious effects of tea and coffee upon the adult. Because of this let us emphasize the point that the *growing child* should not drink tea and coffee; when he is grown he may decide for himself. This information does not cause the parents who drink tea and coffee to feel that we are criticizing them; rather, it justifies them in teaching the child that he should not drink coffee and tea.

Survey to find the number of children who drink milk every day. Encourage them to drink at least a glass or a cup of milk with each meal. Survey to find the number who drink coffee or tea. Discourage the use of coffee and tea because:

1. They are not foods.
2. They often keep children from growing.
3. They often keep children from being happy and healthy.

Develop the health lesson: "I should drink some milk every day. I should not drink tea or coffee."

LESSON IV

Race between milk bottle and coffee pot

Obtain a milk bottle and a coffee pot or draw on the board an outline of each, large enough to write the children's names on. The names of those who drink milk every day and who do not drink coffee should be written on a slip of paper and placed in the milk bottle, or written on the bottle on the board. The names of those who drink coffee will be placed within the coffee pot. The object is to see which one gets the most names in a given time, the milk bottle or the coffee pot. This should be checked daily.

Milk for breakfast,
Milk for luncheon,
Milk for dinner too,
Makes your cheeks all red and rosy,
Milk's the drink for you.

LESSON V

Tell the following story:

THE MILKMAID FAIRIES

One night Florence, a little nine-year-old girl, lay in her soft bed staring up into the sky. She was looking at the Milky Way—that pretty, long white path which sometimes extends across the heavens. As she gazed she noticed two tiny specks that in the distance looked like the sails of ships. They came nearer and nearer and grew larger and larger as they came down the white path right toward Florence. Suddenly she heard the soft tinkling of bells, and in the twinkling of an eye the Milky Way streamed right into her room, looking for all the world like a pretty snowdrift. And sliding down it were two little fairies!

They stopped right at the foot of the bed, and the Milky Way disappeared just as quickly as it had come. The little fairies made a pretty bow and stood in front of Florence. She was so surprised that she could do nothing but stare at them. They had on dresses of blue and wore quaint white aprons and sunbonnets, and each one carried a small silver pail.

"Wh-why, who are you?" Florence asked at last.

"We're the Milkmaid Fairies," they said together, "and we came down from Wonderland's dairy, just to see you."

"How nice!" Florence said politely. "But—but why did you come?"

"Because you are pale and thin and sickly, and the Good Health Fairy sent us to you to whisper the magic secret for getting as strong as we fairies are. What would you give to be as healthy as we are?"

Florence could not take her eyes off the little fairies, they were so pretty. Their cheeks were as red as the roses in her garden, their lips crimson like strawberries, and their bodies

were prettily rounded. She looked into the mirror and saw her own white face and thin body, and thought of her nickname, "Skinny," which she hated.

"Oh, I'd give anything in the world to be like you!" she exclaimed.

"Well, you can," and the little fairies smiled at her. "We've come to tell you about a magic health food. It will make you grow big and healthy and will put color into your cheeks. It will make you so strong that you can work hard and play hard and be happy."

"Oh, that must be fairy-food," Florence said. "There's nothing so wonderful in this world, is there?"

"Indeed there is. Yet you and many other boys and girls pass it by every day and refuse to give it a chance to do its work."

"Please, please tell me what it is. I would never pass it by if I knew what it was."

"All right, then," said the little fairies. "It is this." And they swung high their little pails, so that Florence could see the rich, creamy milk inside.

"Oh—just milk?" Florence asked, looking disappointed.

"Yes—just milk," and the fairies laughed. "But you wouldn't say 'just milk' if you knew how wonderful it is. You didn't know that you've been having a magic health builder on your table every day, did you? Many little boys and girls don't know that milk is necessary for their growth. It is the best food there is, and no child can be as strong as he should be without it. Every time you drink a glass of it you are building up your body. Just take a taste of our milk now."

One little fairy held up a glass no bigger than a thimble, and the other tiny milkmaid poured out the milk. She handed it to Florence, and down it went in one swallow.

"My, that's good!" she exclaimed. "I never knew milk tasted so nice. Why, I feel stronger already."

The little fairies were delighted and, clapping their hands, danced merrily around the room.

"Drink a quart every day," the fairies advised her when, flushed and laughing, they finished the dance. "And if we don't see a rosy-cheeked, strong, plump little Florence in a few months, we'll start drinking coffee." And the fairies shook with laughter at the very idea of their looking at coffee.

Suddenly somewhere away up in the sky hundreds of fairy bells started to ring.

"Those are the bells in Wonderland," the fairies said, "and mean that we must go. Don't forget the magic secret, and we'll come some time again and see how it has worked. Good-by—good-by."

And before Florence could say a word, the fairies flew right out the window and were away up in the sky, looking like little birds.

"I can hardly wait until morning to start drinking milk," Florence said to herself as she dreamily stretched out in bed. —MARGUERITE BREEN. Courtesy of the Wisconsin Anti-Tuberculosis Association.

LESSON VI

Allow those whose names are in the milk bottle to dramatize "The Milkmaid Fairies."

LESSON VII

Water

To the teacher:

Children should drink at least four glasses of water daily —a glass upon rising and one before each meal. They

should not be encouraged to drink water at bedtime. Drinking water should not be extremely cold. Children should be taught not to gulp water, but to drink it slowly. If water is taken at mealtime, it should be drunk after the food has been swallowed; it should not be used to "wash down" the food.

Present a lesson emphasizing the importance of drinking a glass of water before each meal.

Teach the children to fold paper drinking cups. (See illustration on page 498.)

Teach the following rime:

"Mistress Mary, quite contrary,
How does your body grow?"
"With plenty of milk and plenty of play,
And four glasses of water every day,
And rest, that's how I grow."

LESSON VIII

Posture

To the teacher:

A child who is well and healthy at this age almost always maintains a correct posture. The children whom we find to have flat chests, sharp shoulder blades, prominent abdomens, and other symptoms suggesting faulty posture may usually be placed in the malnourished group. Faulty postures in young children are largely due to the neglect of general health habits or to obvious physical defects, such as diseased tonsils, adenoids, decayed teeth, any of which tend to lower the general physical resistance. Because of these facts we feel that the standard of correct posture depends largely upon the formation of health habits and the correction of the physical defects that are a menace to the general health of the child.

Attention should be given to the seating of the children. The unusually small child should not be placed in a seat so large that he must make an effort to get his feet on the floor; nor at a desk so high that he is forced to raise his right shoulder out of line and to drop his left shoulder when he places his arm to write. On the other hand, the overgrown child should not be placed in a seat so small that his legs and knees are in a cramped position, and the desk so low that it is necessary for him to lower the right shoulder out of line as he places his arm to write. Be sure that the seat fits the child. (See Figures 64, 65, pages 550, 551.) Faulty positions in growing children often result in the beginning of spinal curvatures.

NOVEMBER

FOOD; ELIMINATION; HANDKERCHIEF DRILL

Stories on food that appeal to children

"Stoking the Engine," from *The Most Wonderful House in the World*," chapter vi, page 52. J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

"The Huckabuck Family," by Carl Sandburg, from *Child Life Magazine*, May, 1924. Rand McNally & Company, 536 South Clark Street, Chicago, Illinois.

Suggestion for morning inspection

Draw a large Thanksgiving turkey on the board. Every child who meets your requirements should have his name written under the turkey for the day.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Make an effort to get each child's weight record into the home. Have the children who have gained since the last weigh-day stand, and permit the rest to cheer for them. Have a short discussion on things they should do to help them gain. Emphasize the value of food and rest.

LESSON III

Tell the story "The Three Wishes," which you will find on the following page.

The Three Wishes

One day during vacation two children were playing together at making mud pies. The older one was a boy named John, and the younger was John's sister, Margaret.

"Wouldn't it be nice," said Margaret, "if a fairy would come and tell us we may have any three things we wish for?"

"Oh," said John, "you ought to know that there aren't any fairies any more, but it would be nice."

And just as he spoke, what do you think happened? There appeared right out of the air a beautiful lady in a dress of shining blue.

"I am a fairy," she told them. "I heard what you said. You may have your desire. Wish for any three things, and your wish will be granted. Only remember that you may have three wishes and three only; so make your choice wisely."

With these words, she vanished before the children had time to say even "Thank you." Margaret, who was eager to try the fairy's gift, cried out at once, "I wish I had a barrel of candy that was always beside me, and would never be empty." At that very instant, a little barrel just full of chocolates and gum drops and caramels jumped right out of the ground at Margaret's side.

"The very kinds we like best!" she shouted; and you may be sure the children wasted no time before sampling the candy. They ate and they ate and they ate it. But, no matter how much they ate, the barrel was still full to the top.

After awhile they heard Mother calling, "Margaret, John, come in to wash for dinner."

"I know what my wish is," said John; "it is never to wash any more."

And pretty soon Mother called again, but this time she said only, "Margaret, come in to wash for dinner." For, you see, John didn't have to wash on account of the fairy gift.

Then both of the children went into the house for dinner, and the candy barrel jumped right up and hopped along beside them. Mother didn't seem to notice the little barrel, but she did notice that the children weren't eating much for dinner. How could they eat vegetables and drink milk after they had eaten candy all morning long?

"I wonder what the trouble is with you children?" Mother said.

Margaret and John made no reply, for they didn't want to tell that they had been eating candy all morning, and they thought a grown person wouldn't understand about the fairy gift. After dinner John and Margaret went back to the mud pies again, and the wonderful barrel of candy.

While they were playing, Mrs. Smith, the minister's wife, passed by. "Why, John," she said, "what dirty hands and face you have!"

John felt rather unhappy when he heard these words, so he slipped into the house and turned the water faucet. But the water wouldn't run; it wouldn't run at all, because the fairy had arranged that John should never have to wash again. So John had to go back without washing, and it seemed as if every one who went by on the street was saying, "Look at the dirty hands and face that little boy has," so that he felt very uncomfortable indeed.

John hadn't eaten any candy for some time, now, and neither had Margaret.

Pretty soon Margaret said, "I'm feeling awfully sick. I guess it is the candy. I'm going to lie down on the couch on the porch."

John didn't like to say so, but he felt sick, too. So he went along with his sister and lay down in the hammock. And the little barrel of candy hopped right along with them. It hopped right up on Margaret's pillow. Now, you know, you never could stand the sight of candy after it has made you ill.

"Oh, dear!" wailed Margaret, "there is that awful little barrel. John, I wish the fairy gifts would go away and leave us just as we were before."

As soon as Margaret spoke, the barrel vanished right out of sight. John leaped from his bed, and ran to the bathroom to turn on the faucet. Sure enough, the water ran out of it. You see, the children had just wished two of their wishes before, and the fairy had said they might have three. So when Margaret said that she wanted the fairy gifts to go away, why, that was the third wish. The barrel of candy vanished, and John was able to wash his hands and face, which he did at once, and felt much better. The two children decided right then and there that if the fairy ever came again and said that she would grant them three wishes, they wouldn't wish for such foolish things.—Dorothy Phillips Polacheck. Courtesy of the Wisconsin Anti-Tuberculosis Association.

LESSON IV

Have the children retell the story "The Three Wishes," and develop the health lesson: "I should eat wholesome foods, including vegetables, fruits, and cereals, and I should drink milk. I should not drink tea or coffee."

Have them make three *good health wishes.*

LESSON V

Food habits

To the teacher:

In teaching food habits to children of this grade, we realize that we are trying to encourage in the school that which must be enforced in the home. We teach the children to eat vegetables, fruits, and cereals and to drink milk. We make our teaching vital through the use of pictures, stories,

songs, and games. Let us place our emphasis upon *foods that we should eat*, and avoid, as far as practicable, a classification of *bad foods*. For example, a child should have fruit, cereal, milk, and dark bread for breakfast. He may be having pancakes and coffee. Emphasize the right kind of breakfast so that the child will want it. Avoid criticism of improper food that is being served in the home by calling it *bad food*, as we often lose completely our coöperation with the parents through this negative teaching. If we create a keen sensitiveness within the child to a selection of the right kinds of food, he will gradually develop within himself an awareness of the foods he should not eat. A good general food rule is:

A maximum of vegetables, fruits, cereals, and milk; a minimum of meats, sweets, and pastries.

Vegetables form a very important part of the child's diet. There is little danger of any of the fresh vegetables not agreeing with him. He should eat a variety of them. Many children of this age have not formed an appetite for vegetables. You can do much toward encouraging them to develop their appetites, and they will become much interested in their own progress. You may suggest that a very small portion of vegetables may be taken from time to time until a liking actually develops. It is possible for you through your encouragement to develop an appetite in every child for five or six of the most essential vegetables. He should eat at least two kinds each day. Among the essential vegetables are spinach, carrots, beets, tomatoes, peas, lettuce, celery, green beans, turnips, asparagus, cauliflower, and raw cabbage. You will find an instructive article on food on page 514.

Have the children bring pictures of vegetables cut from magazines. Make a poster showing a group of seasonable vegetables. Refer to Figure 10 on page 86 for an illustration of what may be done by the children

with such pictures. Have the children name the vegetables that they eat. Explain to them that children should eat

FIG. 10. POSTER (PICTURES CUT FROM MAGAZINES)

a variety of vegetables to make them grow. Try to encourage them to eat five or six kinds of vegetables a week.

LESSON VI

There was an old woman who lived in a shoe.
Though she had many children she knew what to do.
She fed them on carrots and spinach green,
And healthier children you never have seen.

Discuss with the children the pictures of vegetables they have brought and mount the best ones. Place them in the health corner.

LESSON VII

Elimination

To the teacher:

In connection with the lessons on foods you should give some attention to the regular daily habits of attending the toilet. Because of variance of opinion among teachers as to the presentation of the subject, we prefer to permit the individual teacher to handle the teaching of the subject as she wishes. It seems that the most satisfying results have been obtained where it is admitted as group teaching and frankly presented as one of the important health habits, which it truly is. The important facts to teach are:

1. Children should form regular daily habits of going to the toilet.
2. They should go at least once daily—in the morning after breakfast is preferable.
3. The enforcement of these habits depends largely upon going at regular times daily and upon eating the proper foods, which are spinach, carrots, raw cabbage, any of the leafy vegetables, stewed prunes, oranges, apples, dark breads, and cereals—especially bran served with cooked breakfast foods.
4. They should drink at least four glasses of water daily.

Do not allow yourself to overlook a health lesson which is so important to the general health of the child.

LESSON VIII

Handkerchief drill

To the teacher:

Drills on the proper use and the care of handkerchiefs teach several important health lessons:

1. To blow the nose correctly
2. To cover up each cough and sneeze
3. To carry a handkerchief daily
4. To care for the handkerchief properly

The Drill:

1. The pupils should have clean handkerchiefs or cloths.
2. They should be instructed to close one nostril and with mouth slightly opened blow gently three times through the other one. They are to practice this process with each nostril. (Both nostrils should not be blown at the same time. Infection may be carried into the ears and sinuses which may cause serious trouble.)
3. They should fold the handkerchief and place it in the pocket or a clean place.
4. They should keep their handkerchiefs out of sight so they will not be tempted to handle them carelessly.

This drill should be repeated often.

DECEMBER

FOOD (*Continued*)

Stories on food that appeal to children

"A Garden Party," by Kathryn Custer, from the *Youth's Companion*. Perry Mason Company, Commonwealth Avenue and St. Paul Street, Boston, Massachusetts.

"The Apple Tree Story," by Carolyn Sherwin Bailey, from *The Outdoor Story Book*. Pilgrim Press, 14 Beacon Street, Boston, Massachusetts.

Suggestion for morning inspection

Make or otherwise obtain dolls representing Mr. and Mrs. Santa Claus. When all the girls meet your requirements, Mrs. Santa Claus remains in the room; if all of the boys come up to the standard, Santa Claus stays. The object is to have Mr. and Mrs. Santa Claus visit your room every day. When both Mr. and Mrs. Santa remain, permit the children to discuss Christmas plans.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Make an effort to get each child's weight record into the home. Have the children who have gained since the last weigh-day stand, and permit the rest to cheer for them. Have a short discussion on things they should do to help them gain. Emphasize the value of food and rest.

LESSON III

Teach the following rime:

"Mistress Mary, quite contrary
What is it makes you grow?"
"Lots of milk and butter and bread,
Eggs and oatmeal and apples red,
And vegetables all in a row!"

LESSON IV

Cereals and coarse breads

To the teacher:

Cereals and coarse breads form an important part of a child's diet. Children should be encouraged to eat them daily. Cereals may be used generously for breakfast, and for supper as well. The most nourishing ones are the ones to be cooked. By this we mean that a cup of cooked oatmeal contains three or four times more food value than a cup of "dry" or prepared cereal. You should encourage the use of oatmeal, cream of wheat, whole cracked wheat, wheatena, and other cereals. Prepared breakfast foods served with fresh or stewed fruit may be given as a supper dish. Plenty of whole milk should be used over cereals, and a very small quantity of sugar. The best dark breads are bran, whole wheat, graham, and whole rye.

Show a poster or pictures portraying four or five kinds of cereals that are good for children.

Have the pupils name the cereals they eat. Explain that the cooked ones are more nourishing than the prepared ones. Use but one teaspoon of sugar to a bowl of cereal and plenty of whole milk. Cereals are good for breakfast and for supper.

LESSON V

Teach the rime:

Little Jack Horner sat in the corner
Eating his breakfast with joy.
'Twas oatmeal he had that made his heart glad.
What a healthy and wise little boy!

Encourage the use of dark breads. Have pupils name the kinds of dark breads they like.

Ask them: "If your mother sends you to the store to buy bread, what should you say to her?"

Teach them to answer: "Please, Mother, may I buy a loaf of dark bread?"

LESSON VI

Fruits

To the teacher:

Some of the important vitamines are found in fresh and stewed fruits; therefore it is necessary to encourage growing children to eat some fruit daily. Recommend the seasonable, less expensive fruits. The best ones are apples, oranges, peaches, plums, grapefruit, stewed prunes, and other fruits.

Show a poster picturing various seasonal fruits. (See illustration on page 86, Figure 10.) Permit the children to name the ones they eat. Name the stewed fruits, as: prunes, peaches, apricots, and others. Encourage the use of fruit every day. Fresh fruits must be peeled or thoroughly washed.

Have the children bring pictures of vegetables, fruits, cereals, dark breads, and milk cut from magazines for use in poster making.

LESSONS VII AND VIII

Prepare a Christmas table, using pictures cut from magazines. Have the children select the foods which they should eat on Christmas Day for breakfast and for dinner. Discuss the fact that they should eat their vegetables and fruits and drink milk before they indulge in their Christmas treat. Try to encourage them not to overeat of the usual Christmas sweets.

JANUARY

MOUTH HYGIENE

Stories on mouth hygiene that appeal to children

"The Brushes' Quarrel," from *Healthy Living*, page 105, by C.-E. A. Winslow. Charles E. Merrill Company, 440 Fourth Avenue, New York.

The Magic Pearls, by Marion A. Goodyear. The Colgate Company, New York.

Suggestion for morning inspection

Cut squares from white cardboard. Explain meaning: "Card of white—all right!" Those who meet the requirements may have a white card fastened on the desk for the day. Object: to have all the children have white cards.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Try to get each child's weight record into the home. Have the children who have gained since the last weigh-day stand, and permit the rest to cheer for them. Have a short discussion on things they should do to help them gain. Emphasize the value of food and rest.

LESSON III

Care of the teeth

To the teacher:

The children in this grade are beginning to lose their baby or temporary teeth, and these are being replaced by

their second or permanent teeth. The temporary teeth should be kept clean and cared for until they are loosened by the permanent teeth, as it is a function of each temporary tooth to guide a permanent tooth into its place. If the

FIG. 11. POSTER ON BRUSHING TEETH
(PICTURE CUT FROM MAGAZINE)

temporary teeth are allowed to decay and are lost in early childhood, the permanent teeth are likely to come in out of line. The teeth of children should be watched carefully. Dental care should be given upon early signs of decay.

The care of the teeth is one of the most important health habits, and yet this habit is very generally neglected.

Dependable statistics tell us that 50 to 75 per cent of our school children have defective teeth. We are impressed with the importance of the care of the teeth when we know the conditions that exist, and at the same time realize that a normally healthy mouth is possible for every child.

Emphasize these points:

1. If we are to grow straight, strong teeth, we must eat the foods that help them to grow this way—spinach, carrots, beets, raw cabbage, tomatoes, oranges, milk, and cereals.
2. Our jaws need the exercise of chewing so that they will grow and develop and make room for the teeth to come in straight and strong.
3. We must brush our teeth before breakfast and before bedtime to keep them clean.
4. We should visit the dentist at least every six months.

Inspect the mouths of the children.

Select several children who have clean teeth and who take good care of them. Have them show their teeth to the other children.

Teach the following song:

YANKEE DOODLE FOLKS

We brush our teeth both morn and night
To keep them spick and spandy;
We brush our hair, our clothes, our shoes;
With brushes we are handy.

We are Yankee Doodle Folks,
We are spick and spandy,
We are proud that we belong
To Yankee Doodle Dandy.

Have the pupils cut from magazines pictures suggesting clean teeth. These will be used later for poster making.

LESSON IV

Sing the song "Yankee Doodle Folks" (Lesson III).

Clean teeth

Aim: To teach children the usefulness of the teeth and the importance of keeping them clean.

Approach:

1. Present pictures of children with clean, even teeth, and also of children who are brushing their teeth.
2. How do the children look? Happy and healthy.
3. What are they doing that helps to make them healthy? Brushing their teeth.

Lesson:

1. What do your teeth do for you? Bite and chew our food.
2. Which teeth bite the food? Front teeth.
3. Which teeth chew the food? Back teeth.
4. Why do babies need no teeth? Milk is their only food.
5. What should you do for your teeth? Keep them clean.
6. How often should you clean your teeth? At least twice daily; before breakfast and before bedtime.
7. Why should you clean them? So they will be clean and white and will not decay.
8. How should you clean them? Use toothbrush, water, toothpaste or salt or soda. (Explain that a little salt or soda used on the brush is as good as toothpaste or powder.)

9. What kind of toothbrush do you use? A stiff one, not too large.
10. Will you lend your toothbrush to any one else? No.
11. How many in the family should have toothbrushes? Every one.
12. What do you do with your toothbrush after you have cleaned your teeth? Rinse it well and hang it in the sun if possible.

Two little health chores we all must do
To keep our teeth strong and white:
We'll brush them in the morning,
And then again at night.

LESSON V

Sing the song "Yankee Doodle Folks."

Survey to find the number of children who have toothbrushes at home.

Show a toothbrush and emphasize these points:

1. It should have stiff bristles.
2. It should not be too large.
3. It should be kept clean and hung in a sunny place if possible.

Encourage the children to brush their teeth before breakfast and before bedtime each day.

LESSON VI

You should run and walk to exercise your legs and bodies. This exercise makes you grow strong.

You should chew your food to exercise your jaws and teeth. This helps them to grow strong and straight. Breadcrusts and toast and meat are some of the foods which make you chew and exercise your jaws and teeth. Cereals, dark breads, milk, and vegetables are some of the foods that help you to grow strong teeth.

Survey again to find if more pupils have brushes. Encourage every child to get a toothbrush.[1]

LESSON VII

Toothbrush demonstration

Select a child from an upper grade to give a demonstration on brushing the teeth. Make sure that this child has been drilled in the process. (Refer to the February outline, Lesson III, for the important points which should be observed in brushing the teeth. Explain these points as the child demonstrates them.)

Teach the rime:

Clean teeth don't decay,
Use your toothbrush
Twice each day.

LESSON VIII

Discuss the pictures of clean teeth which the children have cut from magazines and mount the best ones on cardboard. Place them in the health corner.

[1] Some toothbrush companies or your local drug store may supply you with brushes at a minimum cost. Many of the children will be able to pay a few cents for a brush if you can supply them. Many of the large toothpaste companies are very liberal in supplying samples of toothpaste upon request.

FEBRUARY

MOUTH HYGIENE (*Continued*)

Suggestion for morning inspection

Draw a large valentine heart on the board. Write the number of each row in the heart. When all the children in a row meet your requirements, place a small heart in the valentine, under their number. Grant some special privilege on Valentine's Day to the row that has the most hearts. (As suggested in the Foreword, perhaps a child may do the inspection. See Figure 12, page 101.)

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Make an effort to get each child's weight record into the home. Have the children who have gained since the last weigh-day stand, and permit the rest to cheer for them. Have a short discussion on things they should do to help them gain. Emphasize the value of food and rest.

Instruct four or five children to bring their toothbrushes for the next lesson. Remind them to wrap the toothbrushes in clean paper or to place them in envelopes. Try to make it possible for every child in your room to possess a toothbrush, so that he may be included in a demonstration.

LESSONS III TO VIII (*Inclusive*)

Toothbrush demonstration

To the teacher:

It is a difficult problem to teach children of this age the proper method of brushing their teeth. The schoolroom toothbrush drill has been generally used, but the results have not been wholly satisfactory. Personal supervision and careful directions are necessary in order to teach a child to brush his teeth properly. This is not possible where a large group is included in the drill. We recommend that a demonstration be given to groups of four or five children rather than to the entire schoolroom at one time. These children should be taken from the schoolroom to a convenient place for the demonstration. (See Figure 62, page 548.) If your school building is not equipped with lavatories that may be used for this purpose, you may supply a drinking cup for each child, a pitcher of water, and a basin. It will be necessary for you to give each child special attention in order to obtain satisfactory results.

Opinions differ among members of the dental profession as to the best method of brushing the teeth. The process given below, however, seems to be generally accepted.

Order in which teeth should be brushed:

1. Brush inner surfaces first.
2. Brush chewing surfaces.
3. Brush outer surfaces:
    a. Back teeth
    b. Side teeth
    c. Front teeth

Methods of using the brush:

1. Open the mouth enough to allow an easy motion of the brush.
2. Use a rolling motion of the wrist, not the force of the whole arm.
3. Brush upper teeth down.

4. Brush lower teeth up.
5. Include the gums on the strokes—brush vigorously.
6. Use at least ten strokes to each movement. (By this we mean ten to the back teeth, ten to the side, and ten to the front teeth in both the upper and lower jaws.)
9. Rinse the brush often.
8. When the brushing is finished, rinse the mouth several times, forcing water back and forth through the teeth.

FIG. 12. MORNING INSPECTION BY PUPILS

Call attention of the children to the feeling of cleanliness. Have the first group you have instructed show the other children their clean teeth. The entire month is given for these demonstrations; therefore an effort should be made to teach *every child* the lessons.

Include in the morning inspection a report on habits of brushing the teeth twice daily.

Teach the following rime:

"A diller, a dollar, a very fine scholar
What makes you look so nice?"
"My face, hands, and hair
I attend to with care,
And my teeth every day I brush twice."

MARCH

REST; CHEERFULNESS

Stories on rest that appeal to children

"The Story of Twinkle," by Carolyn Sherwin Bailey, from *The Outdoor Story Book*. Pilgrim Press, 14 Beacon Street, Boston, Massachusetts.

"The Go to Sleep Story," by Eudora Bumstead, from *Health Training in Schools*, by Theresa Dansdill. National Tuberculosis Association, 370 Seventh Avenue, New York.

FIG. 13. THE HEALTH TRAIN

Suggestion for morning inspection

Make a poster of a health train. When every child in a row has met the health requirements, a picture of a child's face should appear in the window for that row. Aim to have a picture of a child's face in each window.

LESSONS I AND II

Weigh and *measure* the children. Place the record on the classroom weight chart. Send a record of the height and weight home with the child. Try to determine the reasons for individual losses and gains.

LESSON III

Hours of sleep

To the teacher:

One of the health habits most essential to the growing child is long and regular hours of rest. You can do much to encourage an early bed hour; but, after all, the parents must enforce it in the homes. Insufficient rest is commonly the cause of nervousness, instability, underweight, and a low physical resistance. Children of this age should have at least ten hours of rest at night, and those definitely underweight should have additional daytime rest periods. Because rest is so necessary to the health and growth of the child and because late bedtime hours and overactivity commonly exist among children from all types of homes, we suggest that if you have a Parent-Teachers' Association or a Mothers' Club, the problem be brought to its attention. You may be able to obtain a nurse or a local physician to present the problem.

Develop the health lesson: "I should go to bed at eight o'clock every night and have my windows open. I should remove all day clothing."

Teach the rime:

I brush my teeth, I comb my hair
I open my windows to let in fresh air,
I sleep ten hours, and I play out of doors,
For I am the health child and do all my chores.

LESSON IV

Survey to find the number of children who go to bed at eight o'clock.

Teach the song:

RONDO

John Brown slept ten hours,
John Brown slept ten hours,
John Brown slept ten hours,
Ten little hours of sleep.

One little, two little, three little hours,
Four little, five little, six little hours,
Seven little, eight little, nine little hours,
Ten little hours of sleep.

LESSON V

Bedtime duties

1. Remove all day clothing.
2. Wash face, hands, ears, and neck.
3. Brush teeth.
4. Get clean clothes ready for morning.
5. Have windows open so we shall have plenty of fresh air.

LESSON VI

Have the children cut from magazines pictures representing sleep or rest. Discuss the pictures.

LESSON VII

Select the best pictures and mount these. Place them in the health corner.

LESSON VIII

Cheerfulness

Develop a lesson on cheerfulness, emphasizing the health lesson: "I should try to be cheerful, clean-minded, and helpful toward others."

Have the children tell how they can be helpful: (*a*) at school; (*b*) on the playground; (*c*) at home.

APRIL

EVERYTHING UNCLEAN AWAY FROM EYES, NOSE, AND MOUTH; CARE OF THE EYES; EXERCISE

Stories that may appeal to children

Health First Reader, by William S. Groom. Strobridge Lithographing Company, Cincinnati, Ohio.

The Mignonette Fairy, by Katherine M. Beals. Henry Holt & Company, 1 Park Avenue, New York.

Suggestion for morning inspection

Draw a May basket on the board. Each morning that every child meets your requirements place a flower in the basket. Aim to have the basket filled by May Day. This may also be carried out with a real basket and artificial flowers. Place a flower in the basket for each child who is up to standard. Aim to have the basket filled daily.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Send a record of each child's weight home to his parents. Have the children who have gained in weight since last weigh-day stand, and permit the rest to cheer for them. Try to determine the reasons for individual losses and gains. Emphasize the value of food and rest as important factors governing the children's growth.

LESSON III

Unclean things away from eyes, nose, and mouth

To the teacher:

Hands, pencils, pens, and other objects commonly carried to the mouth are considered among the greatest menaces as disease carriers. There is a common tendency among children to handle food before thoroughly washing the hands, and also a tendency to carry pencils, pens, rulers, and other objects to the mouth. No doubt these careless habits are responsible for the spreading of many of the infectious diseases. In some schoolrooms pencils and other school supplies are collected each day. This means an exchange of pencils, pens, and other objects. Various methods of sterilization have been suggested, but apparently these have not been successful. If every classroom teacher could instill in her pupils a sensitiveness to keeping everything unclean away from eyes, nose, and mouth and to washing the hands before taking food, there would be little danger in the exchange of these supplies and there would be fewer infectious diseases in the public schools.

Tell the following story:

BILLY'S PAL

One day Billy was left at home alone because he had not done his arithmetic. There he sat, absent-mindedly chewing his pencil and never once trying his examples. Suddenly he was startled by a wee voice saying, "Ouch!" He had been left alone in the house. Where did the voice come from?

He listened again, ever so hard, but heard nothing, so he fell to chewing his pencil harder. "Ouch! Ouch!" Again the same pitiful little voice. Billy began to feel queer and a bit frightened. Where in this lonely house could the sound come from? He meant to know.

Billy sat ever so quiet. He was not going to be surprised again, thought he. In his uneasiness, he started to gnaw harder at his pencil, and as he put his teeth deep into the shiny red wood—

"Ouch, ouch! Please stop." And who do you suppose it was? The pencil!

In his fright, Billy dropped the pencil from his mouth on to the table. And then the queerest thing happened. The pencil didn't roll; it just rose up on its point—but it wasn't a point at all. It was a pair of tiny black boots. And the pencil was a little thin man in a glossy red suit and a bright helmet.

Billy gasped.

"Sorry I frightened you, Billy," said the pencil, "but you were hurting me terribly."

"Why did you say 'Ouch' and 'Stop,' and where did you come from, and"—Billy was all upset. Think of a pencil talking!

"Guess maybe you'd say 'Ouch' and 'Stop' and more, too, if some one chewed your head and spoiled your best suit," answered the pencil.

"But nobody ever knew it hurt pencils," said Billy, less frightened now.

"Just look closely at my bright red coat," said the pencil, "and you'll see the marks of my suffering."

Billy picked up the pencil and gently set it on his hand.

"See here," continued the pencil. "These are the teeth marks of Mary, who is sick at home with the whooping cough. She got me from John. John traded me in for four marbles. He fished me out of the waste basket where I slipped to from a hole in Tom's pocket. That was just before Tom left school with scarlet fever. And Tom discovered me in a gutter, where I was glad to fall after being perched all day back of a peddler's ear."

"You don't mean to tell me that you've had whooping cough and scarlet fever, and have lived in wastebaskets and gutters?" asked Billy in surprise.

"Oh, my, yes! That's only a bit of my life. I've had many an unpleasant trip since I left home."

"Your home?" questioned Billy. "And where was that?"

"My home was a bright clean factory. All my brothers and sisters were dressed just as I'm dressed—in shiny red suits. We all had our names put on us in silver letters. We were so proud of our names. Look at mine!"

"Why, I can't make it out! It has been chewed up," said Billy, disappointed.

"That's just it," said the pencil. "My brothers and sisters all left the factory hoping to be owned and loved by some boy or girl who would keep them clean and not hurt them. We all wanted to help children draw and write and do lessons—help them so they would keep us for work. But we are chewed up and gnawed at by everyone; we have mumps and measles until we make everyone who touches us sick."

The pencil could say no more, for a big tear was rolling down his little face. And Billy, too, was sorry; so he washed his little visitor gently and said, "From now on you are my little pal. I'll not lose you or bite you, but I'll keep you bright and clean."

And Billy and the pencil worked together and did the arithmetic lesson.—Courtesy of the Iowa Tuberculosis Association.

LESSON IV

Have the children retell the story "Billy's Pal," and bring out the health lesson: "I should keep everything unclean away from my nose and mouth."

Inspect pencils for teeth marks. Explain why pencils should not be put in the mouth.

Emphasize daily the importance of keeping pencils and everything unclean away from eyes, nose, and mouth.

LESSON V

Care of the eyes

Cut from magazines several pictures of children with clear, bright eyes. Show these pictures to the class and have different ones tell what their eyes do for them. In developing a lesson teach these simple but important facts:

1. The eyes should be washed with clean, warm water daily.
2. They should be wiped with a clean towel or a clean cloth. They should never be rubbed with the hands.
3. Each child should have his own towel and wash cloth. He should never use soiled towels in store toilets, depot toilets, and other public places. (Teach this according to the children's experiences.)

Children should be taught that they should not play with "nigger shooters," popguns, bows and arrows, bean shooters, air guns, and other such playthings. These are dangerous to their own eyes and to the eyes of their playmates as well. They should also be taught not to play with sharp-pointed instruments, as pointed scissors, pointed knives, pointed forks, and others. All of these have been responsible for many serious injuries to the eyes.

Read the article "The Responsibility of a Teacher," page 524.

FIG. 14. PHYSICAL EXERCISES IN THE OPEN

LESSON VI

Exercise; fresh air

Develop the health lesson: "I should play in the fresh air and sunshine every day."

Teach the rime:

A little bird sat in a maple tree
Singing and trilling right merrily,
And this was his song, far plainer than words,
"Oh, fresh air's the thing, for both children and birds."

LESSON VII

If you have a physical education department in your schools, you should emphasize the exercises and games taught by that department. If you do not have such a department, you may refer to page 580 for setting-up exercises. If the weather permits, take the children to the playground for a game; if not, raise all windows in the room and allow them to play a vigorous game.

LESSON VIII

Discuss:

Wraps for a cold snowy day
Wraps for a rainy day
Wraps for first spring days

Have the children name the games they like to play best and let them tell why they like to play these games. Encourage them to play those games that promote activity.

(Discuss "rope jumping," "hoop rolling," and other exercises that are likely to be carried to excess. These forms of exercises are all right if not overdone.)

MAY

SUGGESTIONS FOR VACATION

Suggestion for morning inspection

Select two girls who have made special efforts in their health work. Crown them May queens and permit them to do the inspection. Different girls may be chosen each week.

Have the children make health books or health posters to take home to their parents. See the illustrations on pages 560–562 for suggestions.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Make an effort to get each child's weight record into the home. Have the children who have gained since the last weigh-day stand, and permit the rest to cheer for them. Have a short discussion on things they should do to help them gain. Emphasize the value of food and rest.

LESSON III

Cleanliness

Review the health lesson: "I wash my face, neck, ears, and hands and I clean my finger nails. I wash my hands before each meal."

Compliment the children on the improvements which they have made in personal cleanliness since the first

of the school year. Have them discuss how they will continue to keep clean through the summer. Keeping clean during vacation helps them to keep healthy and happy.

LESSON IV

Food

Review the health lesson: "I try to eat wholesome food, including vegetables, fruits, and cereals, and I drink milk. I do not drink tea or coffee."

Name the summer vegetables that are good for school children. Encourage them to eat vegetables every day. Name the fruits and cereals that are good for children. Fruits should be thoroughly washed or peeled. They should be very ripe. Emphasize the value of their use during the summer.

LESSON V

Milk

Milk is one of the best foods for summer. Teach the following facts:

1. Milk must be kept cool.
2. Milk must be kept clean; it must be protected against dust and flies.
3. Children should drink clean, cool milk every day.

Have the children give the reasons why they should not drink tea or coffee.

Children should drink at least four glasses of clean, cool water every day. They should not drink from old wells or cisterns nor from public drinking cups.

LESSON VI

Care of teeth

Review the health lesson: "I brush my teeth before breakfast and before bedtime."

Emphasize:

1. Brushing twice daily
2. Having clean, stiff brush—not too large
3. Making a visit to the dentist during vacation

Rest

Review the health lesson: "I sleep ten hours or more and keep my windows open. I play in the fresh air every day."

Children should get plenty of play in the open air during vacation. They should be in bed by nine o'clock.

They should remember their bedtime chores:

1. Remove all day clothing.
2. Wash face, hands, ears, and neck.
3. Brush teeth.
4. Go to the toilet.
5. Have windows wide open or sleep outdoors if possible.

LESSONS VII AND VIII

These two class periods should be used to work on the health books or posters which are suggested at the beginning of the month's work.

GRADE III

FOREWORD

To the teacher: The children in the third grade are noticeably more independent and self-reliant than those of the first and second grades. We are here working toward developing with greater thoroughness the habits we have attempted to establish in the first and second grades. The daily health standard is concerned with habits of personal cleanliness, mouth hygiene, food, fresh air and exercise, rest, the height-weight relation, and cheerfulness. You will find the general outline of the work at the end of the book. The lessons are planned for group teaching. As you proceed with them you will be delighted to note an increase generally in the children's enthusiasm concerning health. However, your greatest problem will be with the individual cases. For obvious reasons there are a few children in every group who fail to become interested in many of the important habits governing their health. These children require extra time and attention. This task falls largely upon you. If there is a school nurse, she will gladly coöperate with you, or you may appeal to the older brothers and sisters. It sometimes becomes necessary to confer with the parents. In talking to the mother or the father, remember to emphasize the possibilities and good points of the child before you mention his laxness in performing his health habits.

A plan of daily inspection for habits of cleanliness, and a report on the other health habits which you may wish to include, seem to supply the most effective method of gaining results. We have given suggestions through each month which we trust will be helpful to you in developing your work. When you first introduce the morning inspection, do not set the standard of hygiene too high. This standard will, of course, depend largely upon the type of community in which you teach. If the children come from less fortunate homes, make your requirements such that they can be met without working too great a hardship. The minimum requirement should be clean faces, necks, ears, hands, and nails. When the greater number of children meet this requirement, make your demands higher. In communities where the home conditions are such that the habits of cleanliness are satisfactory, you will have an opportunity to devote more time to habits of food and rest, which are often important health problems with children from better homes.

You are to weigh your pupils once each month throughout the year and to measure their height twice a year. We suggest that the measuring be done in October and March. If you have not been accustomed to weighing and measuring the children, you may feel that it is a heavy demand. By experience we have found that, with good organization, thirty-five or forty children can be weighed and measured in twenty-five or thirty minutes. With this in mind we have allowed two class periods each month. Satisfactory arrangements have been made whereby the teacher does the weighing and measuring

and an eighth-grade pupil makes the necessary records. You need not direct the children to remove extra clothing or shoes unless they are unusually heavy. In such a case, the teacher may judge whether it is better to remove the clothing or to allow for the extra weight. The possible humiliation of the child because of holes in his stockings, as well as the extra time used to remove clothing, should be considered.

If the child is within the 10 per cent margin above or below average weight, all other things being satisfactory, there is no reason for special concern. The main point to be emphasized by the teacher is that the "growing child should gain in weight every month; he should not lose or remain the same." If a child is definitely underweight or if he fails to gain in weight month after month, his parents should be urged to have him examined by a physician. A monthly weight record is an important health guide. Each child should write his weight on a slip of paper each month and take it home to his parents. For other suggestions for sending the weight record home, see page 491. Classroom weight charts should be kept in the schoolroom. See illustration of weight chart, page 489. Such charts may be obtained at a minimum cost from the American Child Health Association, 370 Seventh Avenue, New York; from the Department of the Interior, Bureau of Education, Washington, D. C.; or there may be a local health agency in your city which will supply you with them. Some teachers choose to make them. The article on "Malnutrition," page 492, will be a guide in suggesting possible reasons for individual underweights. The gains in weight made

by many of the malnourished children in your charge will depend greatly upon the improvement in their general health habits.

We have asked you often to make posters picturing the health lessons. It will add much to the interest of the pupils if you will select a wall space and call it a health corner. Keep the most attractive posters pertaining to health in this space and have frequent discussions of them. See Figure 66, page 552, for suggestions.

Throughout the grades, we are presenting the same subjects in hygiene during the same months so far as it seems practicable to do so. For example, we teach mouth hygiene in December. In the lower grades we emphasize the importance of brushing the teeth twice daily; in the upper grades we give, in addition, lessons on teeth in their relation to the general health. Thus from homes where there are several children attending school, much coöperation among the members of the family may be gained through a common knowledge and interest in performing the same health habits.

We have suggested to you that pupils from the upper grades be allowed to do the monthly weighing. We have suggested to the upper-grade teachers that they obtain pupils from the lower grades to give demonstrations of "How to Get Ready for School," "How to Brush the Teeth," and other health chores. This interchange of health work will do much toward gaining coöperation and stimulating interest in health throughout the school.

We have made every effort to make the lessons through this grade practical for children in any community.

If you care to, you may correlate the lessons with reading, language, or other subjects.

The progress of the health standard of your room depends largely upon your enthusiasm in the development of the morning inspection.

Subject matter has been prepared for two class periods each week.

SEPTEMBER

CLEANLINESS

Stories on cleanliness that appeal to children

"Dust under the Rug," from *Mother Stories*, by Maud Lindsay. Milton Bradley Company, Springfield, Massachusetts.

"Dick and Dolly's Decoration Day," by Margaret Warde, from *Child Life Magazine*, May, 1924. Rand McNally & Company, 536 South Clark Street, Chicago, Illinois.

LESSON I

Standard of cleanliness

To the teacher:

The best approach to the general health standard seems to be through encouraging habits of personal cleanliness. Children in this grade are at the age when you can begin to appeal to their personal pride. They are also growing more independent in caring for themselves. In developing your work on cleanliness let your main effort be to make the process of keeping clean joyful and interesting to the children. No doubt there will be some children in your room whose home conditions make it very difficult for them to care for themselves. If the school building is not equipped with facilities which will permit these children the privilege of cleaning up, try to arrange a convenient place in your schoolroom or in the corridor. (See Figure 62, page 548.)

In many families where the mother and father are both forced to work outside of the home, the children often suffer great hardships, especially during the cold winter months. These children should be taught to plan to do their cleaning up and to get their clothing ready for school in the evening.

Then in the morning the process of getting ready for school will be made much simpler. Strive to make personal cleanliness attractive to every child and possible for him to attain.

Tell the following story:

The Circus Day

Bobby woke up very happy. At first he did not know why he was quite so happy. And then he remembered that this was Saturday and, better than that, the circus was in town. Bobby was going to the circus early so that he could have a good chance to see all the animals. Out of bed he bounced and started to get dressed. He was in such a hurry that he did not wash his neck and ears, and he washed his face and hands only very poorly. But, worst of all, he did not brush his teeth.

Later Bobby's mother said to him, "You do not look very clean this morning, Bobby. Your shirt and handkerchief are both dirty, and your hair is not nicely brushed. Please fix yourself before you go to the circus."

"All right," said Bobby. But when his mother was giving baby sister her morning bath, he slipped out of the house and hurried away to the circus grounds.

What a wonderful place it was! Tents were everywhere. And men were walking around with great bunches of red and green and blue balloons. Bobby's heart went thump, thump, thump with joy as he went up to the yellow ticket wagon and bought a ticket with part of the whole, big dollar his daddy had given him the night before. Then he bought some peanuts to feed to the elephants, and into the tent he went.

He did not see the elephants right away, so he stopped to look at the monkeys. They were climbing all over one

another, and seemed to be having lots of fun. Pretty soon an old mother monkey looked up and saw Bobby.

"Gracious, children," she cried, "look at that little boy with the very dirty face, and dirty neck and ears! Don't ever let your faces and necks and ears get that dirty."

All the little monkey children looked at Bobby. They looked so hard and so long that Bobby felt uncomfortable, and moved on to look at the ponies.

"They're just fussy, that's all," Bobby said to himself. "No other animals will care how I look."

The ponies were just finishing their breakfast when Bobby walked up to them. They looked at him very politely, and then trotted off around their ring. As two very neatly brushed ponies passed near him, Bobby heard one say to the other, "Isn't it too bad that little boy doesn't keep his hair brushed? I'd hate to have my hair look the way his does." And the pony held her little head up very high, for her mane was brushed just as smooth as it could be.

Bobby wasn't having as good a time as he had expected. But he decided to find the elephants and feed them the peanuts he had bought. One big kind elephant stuck out his long trunk and started to take the peanuts which Bobby held out to him. And then all of a sudden he turned away and said sorrowfully, "I can't eat your peanuts. Your hands are very, very dirty. Surely you always wash your hands before you eat. Why do you think I want to eat out of dirty hands?" And the big elephant turned away and held out his trunk to a little boy who had come and stood next to Bobby. That little boy had very clean hands, and he and the elephant had such a good time together.

By this time Bobby was ready to go home, for he was not enjoying himself a bit. And he decided to go out the way that leads past the birds. One lovely green and yellow parrot

looked so inviting, and Bobby felt that she would not be disagreeable to him. The green and yellow parrot blinked her little beady eyes at Bobby, and said, "Hello!"

"Hello!" replied Bobby, thinking that at last he had found a friend. But just then some little birds in another cage began calling, "Tweet, tweet." To Bobby's mind "tweet, tweet" sounded like "teeth, teeth." You see, he knew he had not brushed his teeth that morning, and he thought the birds knew it.

Home went Bobby just as fast as he could go. Mother was most surprised to see him. She thought Bobby would stay a long time. Bobby was too ashamed of himself to tell his mother why he had come home. But deep down in his heart he knew that from that time on he would always keep himself clean. The animals and birds had taught him a very important lesson.—NATALIE BASSETT DUMONT.

LESSON II

Have the children retell the story "The Circus Day," and bring out the health lesson: "I should wash my face, hands, ears, and neck, and I should clean my finger nails."

LESSON III

Demonstration: How to get ready for school (see Figure 8, page 64, and Figure 9, page 68)

To the teacher:

A demonstration seems to be one of the most effective methods of impressing a child with the process of cleaning up.

In selecting the child for this demonstration, it may be well to choose one whose personal appearance has been neglected. Regardless of the reason for your selection, never allow a child to feel that he has been singled out because of

his untidiness, but rather that he has been honored by being chosen. Help him enough so that the class will not become restless.

Encourage the children to go through the cleaning-up process before going to bed; to see that their clean clothing and clean handkerchiefs are ready for the next day. Then when they arise in the morning, a cold splash over face, neck, and arms, washing the hands, combing the hair, and brushing the teeth will prepare them for breakfast and for school.

Preparation:

1. Basin of water on low stand or chair
2. Two towels (emphasize the importance of individual towels and wash cloths)
3. Pure soap (discourage the use of laundry or strong lye soaps; they are very injurious to the skin)
4. Nail brush
5. Nail file
6. Comb and brush
7. Cloth to wipe shoes
8. Toothbrush

Aim:

1. To impress the child with the actual process of cleaning up
2. To encourage independence and thoroughness

Demonstration:

1. Roll sleeves high above elbows and turn collar band as low as possible (explain that at home the boys' blouses and girls' dresses should be removed).

2. Wash hands first. Emphasize the importance of drying them thoroughly. Clean finger nails.
3. Get a basin of clean water (explain the reason for this).
4. Wash face, neck, and ears, rinse in clean cool water, and dry thoroughly.
5. Comb hair.
6. Wipe shoes.
7. Show the toothbrush and explain that soon we shall have a lesson on brushing the teeth.
8. Arrange sleeves and collars. Have the children cheer for the clean boy.

LESSON IV

Have the children learn the following poem:

MARY'S LITTLE LAMB

Mary had a little lamb,
  Its fleece was white as snow,
She always kept it very clean,
  Just like herself, you know.

It followed her to school one day,
  Which was against the rule.
The children begged to have it stay,
  Just think—a lamb in school!

But when a little child came near
  With dirty hands, and tried
To pet the lamb, it always ran
  Right back to Mary's side.

"What makes the lamb love Mary so?"
The eager children cried.
"Why, Mary's face and hands are clean,"
The teacher then replied.

LESSON V

Morning inspection

The Foreword to this grade includes information on the morning inspection.

The children have had their demonstration and discussion on cleanliness. You should now begin the morning inspection. (See Figure 16, page 131.) For this inspection have the children in position with hands on their desks. An inspector for each row may be appointed by you or chosen by the children. The inspectors are told to inspect for the points of cleanliness which you wish to encourage. Each inspector passes down his row. When he has finished his inspection, he returns to the front of the room and reports on the cleanliness of his row. Children in this grade take delight in doing this inspection and will do it very satisfactorily under your supervision. Display a great deal of interest in the reports of the inspectors.

Although the morning inspection deals only with habits of personal cleanliness, the other important health habits having to do with proper food, rest, fresh air, exercise, and posture should be discussed.

LESSONS VI AND VII

Have children make posters representing cleanliness. These may be made of pictures cut from magazines or they may be made by free-hand cutting. Figure

15 shows one made of pictures cut from magazines. Permit the children to select the ones they like best and place them in the health corner. For suggestions for the health corner, see Figure 66, page 552.

FIG. 15. POSTER ON CLEANLINESS (MADE BY THE CHILDREN)

LESSON VIII

Sing the following song:

BILLY BOY

Cleanliness

"Did you wash your neck and ears, Billy Boy, Billy Boy,
Did you wash your neck and ears, charming Billy?"
"Yes, I washed them when I rose,
Combed my hair, and brushed my clothes,
For, oh, I would be both clean and happy."

"Is your face kept always clean, Billy Boy, Billy Boy,
Cleanliness Is your face kept always clean, charming Billy?"
"I try hard to keep it so,
Always do my best, you know,
For, oh, I would be both clean and happy."

"Tell me, how about your hands, Billy Boy, Billy Boy,
Clean Hands Tell me, how about your hands, charming Billy?"
"One rule that I always keep
Is to wash before I eat,
For, oh, I would be both clean and happy."

"And how often do you bathe, Billy Boy, Billy Boy,
Bath And how often do you bathe, charming Billy?"
"More than once a week I scrub,
As I ought to, in the tub,
For, oh, I would be both clean and happy."

OCTOBER

FOOD (MILK AS A FOOD); POSTURE

Stories on milk that appeal to children

"An Underground Treasure," from *The Land of Health*, chapter vi, page 53, by Hallock and Winslow. Charles E. Merrill Company, 440 Fourth Avenue, New York.

"Psyche and Cupid" (a story of sorting grains), by Marion George, from *The Plan Book*. A. F. Flanagan Company, 521 South Laflin Street, Chicago.

FIG. 16. MORNING INSPECTION (NURSE AND DOCTOR)

Suggestion for morning inspection

Make a nurse's cap with a red cross on it and an arm band with a red cross on it. Allow the inspectors to wear these, imitating a nurse and a doctor.

LESSONS I AND II

Weigh and measure the children. Place the record on the classroom chart (illustration on page 489). Have each pupil write his weight on a slip of paper to take home to his parents. (The Foreword to this grade contains two paragraphs on the weighing and measuring of children.) The article on "Malnutrition," page 492, will help you in determining the reasons for individual losses and gains. The average weights of boys and girls are given in the Weight-Height-Age Tables, pages 487, 488.

LESSON III

Milk

To the teacher:

Milk is a perfect food; it contains all the elements of growth. Growing children should be encouraged to drink some milk every day. They should drink at least one glass of milk with each meal, unless they have been directed otherwise by a physician. When milk is taken at mealtime, before the other foods are eaten, it often satisfies the child's appetite so that he fails to eat enough of the other foods, such as vegetables and bread and butter, which are equally as important as milk. For this reason, you should teach the children to drink the glass of milk at the close of the meal. The article "All about Milk," on page 499, contains many interesting points on the value of milk as a food.

Coffee and tea have no food value and are injurious to the growing child. These reasons should convince us that children should drink neither tea nor coffee. You should emphasize the fact that the *growing child* should not have these drinks. This precludes the feeling among parents who drink coffee and tea that they are being criticized, and it justifies them in teaching their children not to use these drinks.

Tell the following story:

THE STORY THE MILK TOLD TO ME

Did you have a drink of good sweet milk this morning? Yes? Well, so did I, and let me tell you the story it told to me as it stood, white and creamy, in the tall glass. You see, just as I was lifting it to my lips, it looked so foaming and fresh that I said: "Good milk, do tell me where you came from before the milkman brought you to me."

The milk bubbled up a little, then settled down quietly and said, "Yes, I will tell you about it. Before the milkman brought me to you I stood in a bottle, with ever so many other bottles, in a dark, cool ice box in the milkman's shop, where we shivered and grew very cold."

"Then that is what makes you so cold now, is it?" said I.

"Yes," bubbled the milk. "Well, before I lived in the milkman's shop, I was swimming around with ever so much other milk in a very large milk can, out in the country, waiting to be bottled and carried to the city."

"Oh!" I interrupted. "I didn't know you came from the country. Do you grow on trees or in the ground?"

The milk laughed so hard and shook so that it almost spilled itself over on the tablecloth, and I was afraid it would break the glass. As soon as it could speak again it said:

"Dear me! Didn't *you know* that before I was put into the milk can I came right from the old Bossy Cow, who stands

in the meadow by the river, chewing her cud? But before that, and before I was white, creamy milk as you see me now, I grew tall and green on the river bank. No wonder you look astonished. Yes, I was grass for the good old cow to eat."

"And before you were milk, you were grass? How funny! And before that?"

"That is a long story," rippled the milk.

"But where do you go after I drink you?" I asked.

"Oh, after you drink me," answered the milk, "I change into rich, red blood, to make your body grow strong and healthy!"

"Dear, good milk," said I, as I once more lifted the glass to my lips, "then I won't say good-by to you before I drink you, but I will thank the good cow for giving you, and the kind milkman for bringing you to me."—Used by courtesy of the American Child Health Association.

LESSON IV

Permit the children to retell the story in Lesson III and develop the health lesson: "I should drink milk every day. I should not drink tea or coffee."

LESSON V

Survey to find the number of children who drink milk. Explain why milk is a perfect food.

Survey to find the number who drink neither tea nor coffee. Discourage the use of tea and coffee because:

1. They are not foods.
2. They often keep children from growing.
3. They often keep children from being happy and healthy.

LESSON VI

Read the following story:

MILK INSTEAD OF COFFEE

[Masks should be made from paper representing a coffee pot, a milk bottle, a basket of fruit, and a group of vegetables. Refer to Figure 17, page 137.]

MILK; COFFEE — Worn by two boys.

FRUIT; VEGETABLES — Worn by two girls.

[The characters have nothing to say. Inform them as to the idea of the sketch, and when they are to come in. They remain outside until called.]

Boys and girls, I have brought some visitors with me this morning. They are waiting outside. They both claim to be kings. Since it is impossible to have two kings in the same kingdom, they have come this morning for you to choose one of them to rule in the kingdom of Boy and Girl Land.

It would not be considerate to talk before them about the kind of man you would want for your king. Before either of them comes in suppose you decide what he should be like. [*Draw from the children answers bringing out the qualities of strength, bravery, health, kindness, honor, etc.*]

I shall ask one of these men to come in, but you must not make your choice too quickly; remember, whichever one you decide upon will be king.

[*Speaker goes to the door and brings in a boy wearing the coffee mask.*]

This, boys and girls, is King Coffee. Let us see if he answers your needs for a king. First, is he strong? Yes, he looks pretty strong. Does he look healthy? Wait! How can we tell whether or not he is healthy? [*Have the children answer, "Rosy cheeks, white teeth, happy smile."*] Does he have rosy cheeks? No! Does he have a happy smile? No! Does he have white teeth? [*At this point the speaker leans*

over and taps the coffee mask, saying:] "Open your mouth, King Coffee." [*She turns to the class and says:*] "Well, either he has no teeth or they are so bad he is ashamed of them." [*The coffee mask has a closed mouth.*]

[*The speaker leans over and listens to* COFFEE, *then turns to the class and says:*] King Coffee says he is sorry you do not like his appearance, but that he would like to tell you some of the things he can do for you if you will let him be your king.

First, he can give you headaches. Do you like that? Then he can make you "fidgety." Do you like that? Then he says if you will let him be your king he will keep you up just as late at night as you want—that you won't be sleepy at all.

But it seems to me we are spending a lot of time on this king. Suppose we call in the other one and see what we think of him.

[*Enter boy wearing milk mask and two girls wearing fruit and vegetable masks.*]

This, boys and girls, is King Milk with his two pages, Fruit and Vegetables. Let us see what kind of man he is. Does he look strong? [*Children answer.*] Does he look brave? Does he look healthy? Yes, he has lovely rosy cheeks, fine skin, and strong, white teeth.

[*Speaker leans over to* MILK *as he appears to whisper to her.*] King Milk asks me to say that he is glad you like his looks, but that he, too, wishes to tell you what he can do for you.

He would like first to introduce his pages, Fruit and Vegetables. In his kingdom he always has the help of these two pages. They assist him in making boys and girls grow, give them rosy cheeks, and keep them healthy.

King Milk himself will build you strong bones and strong teeth. He will make good muscle so that you can play baseball, football, and all the other games and win. And then King Milk will help you to grow. It would not do to stay

small for the rest of your life, would it? Best of all, the girls and boys are happy in his kingdom because they are

FIG. 17. DRAMATIZATION—"MILK INSTEAD OF COFFEE"

healthy. They play games and win, and stand at the head of their classes.

What is that, Coffee? He says that he knows he has friends here and asks that we have a vote. Shall we vote now for one of these men? [*Children consent.*] All those who would

like Coffee for your king, raise your hands. [*Very few hands.*] Now, all those who would like Milk for king, raise your hands. [COFFEE, *seeing that* MILK *is going to get most of the votes, interrupts.*]

What is that? My goodness! Coffee is not satisfied. He says he knows he is the strongest man and that he thinks the strongest man should have the kingdom. He therefore challenges Milk to fight. Of course, that means that whichever one wins will be the king. But, it seems to me, unless Milk is strong enough to beat Coffee now, he won't be able to hold the kingdom long. What do you say? Shall we let them fight it out? [*Children are keen for this.*] Very well, then; step back, Fruit and Vegetables. [MILK *and* COFFEE *fight by pushing against each other with their masks.* COFFEE *finally allows* MILK *to push him out of the room.* MILK *returns.*] Milk has won and from now on is king of Boy and Girl Land.— By courtesy of the National Dairy Council.

Race between milk bottle and coffee pot

Secure a milk bottle and a coffee pot. The names of those who drink some milk every day and who drink neither tea nor coffee will be placed in the bottle. The names of those who drink coffee will be placed in the coffee pot. The aim is to get all of the names in the milk bottle. Check daily.

Include in the morning inspection a report on habits of drinking milk.

LESSON VII

Children should be encouraged to drink four glasses of water daily. A glass should be taken upon rising and one before each meal. Children should not gulp water, but should drink it slowly.

Teach pupils to fold individual drinking cups. (See illustrations on page 498, Figure 57.) Emphasize the importance of each child's having his own cup.

Have the children learn the following:

LESSON VIII

CONUNDRUM

I come in a bottle, my color is white.
I make the cheeks rosy, the eyes clear and bright.
I chase away coffee, I chase away tea,
And children each day drink a great deal of me.
I help little bodies to grow strong and tall,
And grown people say I'm the best food of all.
The whole wide world over my fame is the same.
Of course you can guess it — now, what is my name?

SONG: BILLY BOY

"Do you drink milk every day, Billy Boy, Billy Boy,
Do you drink milk every day, charming Billy?"
"Why, I thought of course you knew
That's the thing I always do,
For, oh, I would be both well and happy."

"Will you have a cup of tea, Billy Boy, Billy Boy,
Will you have a cup of tea, charming Billy?"
"Thank you, no, I don't drink tea,
It is not a food, you see,
And, oh, I would be both well and happy."

"How much water do you drink, Billy Boy, Billy Boy,
How much water do you drink, charming Billy?"
"Four full glasses every day
Is the rule for health, they say,
And, oh, I would be both well and happy."

Posture

To the teacher:

Standing and sitting postures are usually correct in well, healthy children of this age. Flat chests, stooped shoulders, and other evidences of poor posture are largely the result of improper health habits, such as a lack of fresh air, careless habits in eating, too little rest, and chronic constipation; or they may be the result of physical defects, such as diseased tonsils, adenoids, decayed teeth, and other defects of childhood.

In correcting faulty postures, you should work on the basis of improving the general health of the child, and of the correction of obvious physical defects.

Attention should be given to the seating of the pupils. There are usually a few very small children and a few overgrown ones in a schoolroom. If placed in the seats which are uniformly made for average-sized pupils of this age, they are forced to sit in an uncomfortable position. With undersized children the feet either freely swing or reach the floor with difficulty; in placing the arm on the desk to write, the right shoulder is raised high out of line and the left one is lowered. Opposite conditions result where an overgrown child is placed in a small seat; his legs and knees are in a cramped position; his right shoulder is lowered and his left shoulder is raised as he places his arm to write.

Many stooped shoulders and early spinal curvatures are the result of poor postures caused by improper seating. Make it a point to know that the "seat fits the child." (See Figures 64, 65, pages 550, 551.)

NOVEMBER

FOOD; ELIMINATION

Stories on food that appeal to children

"Dinner with the King" and "Morning in Health Land," from *A Journey to Health Land*, by James M. and Annie L. Andress. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

Suggestion for morning inspection

Dress the inspectors as Puritans. This can be simply done by making large collars and cuffs of white paper.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Have each pupil write his weight on a card to take home. Allow those who have gained in weight some special privilege. Try to determine the reasons for individual losses and gains.

LESSON III

Vegetables

To the teacher:

Vegetables should form an important part of the child's diet. Unless children have been trained from early childhood to eat vegetables, they are prone, at this age, to rebel against eating many of those essential to growth. Children should be encouraged to develop an appetite for at least six or eight kinds of vegetables. Suggest to the children who do not eat many vegetables that they should work toward

developing an appetite for them. For example, if spinach is not liked, encourage them to eat a very small quantity at first and to increase the portion until they are willing to take a large service. Have different children tell the class how they have developed a liking for different foods. One child's suggestion is often very helpful to another. Children should eat at least two kinds of vegetables each day, and six or eight different kinds during a week. Some of the important ones are spinach, beets, asparagus, green beans, raw cabbage, cauliflower, peas, lettuce, carrots, tomatoes, onions, and turnips.

Read the article on "Food," page 514.

Write a list of six or eight vegetables on the board. Have the children name the vegetables they eat. Encourage them to eat all kinds of vegetables. They should eat two kinds every day and five or six kinds in a week. Vegetables make children grow strong and healthy.

Read the following poem:

Where Are You Going, My Pretty Maid?

"Where are you going, my pretty maid?"
"I'm going to market, sir," she said.
"What will you buy there, my pretty maid?"
"Lettuce and spinach and peas, sir," she said.

"That's not all you'll buy, my pretty maid?"
"No, no, asparagus too, sir," she said,
"Beans and tomatoes and apples so red—
"I have a long list here, sir," she said.

"What else will you purchase, my pretty maid?"
"All sorts of nice, fresh fruit, sir," she said.
"May I go with you, my pretty maid?"
"If you would care to, sir," she said.

"Why do you buy these, my pretty maid?"
"You call me pretty, sir," she said.
"What do you mean, my pretty maid?"
"They make me stay pretty, sir," she said.

Have the pupils bring pictures of vegetables cut from magazines. These will be used later for poster making.

FIG. 18. POSTER ON FOOD (FREE-HAND CUTTING)

LESSON IV

Have a boy and girl dramatize "Where Are You Going, My Pretty Maid?" Write on the board a list of the vegetables mentioned in the poem and have the children add others that they should eat.

Develop the health lesson: "I should eat wholesome foods, including vegetables, fruits, and cereals, and I should drink milk."

Make posters representing many kinds of vegetables or have the children work out one large poster. Place it in the health corner.

LESSON V

Develop these points:

1. Children should take plenty of time for their meals.
2. They should always be cheerful and courteous at the table—cheerfulness is an aid to digestion.
3. They should have time to chew thoroughly each mouthful of food.
4. Children should not gulp their food; unchewed food injures their stomachs and more food is required to satisfy their hunger.

If possible give each child a cracker and have him chew each bite ten times before swallowing.

LESSON VI

Cereals, breads, and grain products

To the teacher:

Cereals, breads, and grain products furnish an essential part of the child's diet. The most nourishing cereals should be included in the diet. Among these are oatmeal, wheatena, cream of wheat, whole cracked wheat, corn meal, and other cereals. The cereals to be cooked have three or four times as much food value proportionately as the "dry" or prepared cereals. By this we mean that a cup of cooked oatmeal or of cooked whole wheat contains three or four times as much food value as a cup of corn flakes or puffed rice or other prepared cereals. Uncooked or "dry" cereals served with fruit and milk make a good supper dish. Not more than one

teaspoon of sugar should be used on a bowl of cereal. Use plenty of whole milk.

Fruits should be included as an important part of the child's diet. Fruit may be served either fresh or cooked. Children should eat some fruit every day. Among the best fruits are oranges, apples, plums, peaches, grapefruit, cooked prunes, and cooked apples.

Write on the board a list of the names of six or eight kinds of cereals. Have the children name the kinds of cereals they eat. Encourage the use of cooked cereals.

Children should eat a bowl of cereal every day; they should use but one teaspoon of sugar and plenty of whole milk.

Children should eat dark breads every day; some good kinds are whole wheat, bran, graham, and whole rye.

LESSON VII

Fruits

Write on the board a list of names of fresh and stewed fruits. Have the children name the ones they eat.

Emphasize these points:

1. Fresh or stewed fruit should be eaten daily.
2. Fresh fruit should be thoroughly washed or peeled before it is eaten.

LESSON VIII

Aim: To create a sensitiveness to the selection of foods.

Subject matter:

1. A maximum of vegetables, fruits, cereals, and milk
2. A minimum of meat, sweets, and pastries

Presentation:

1. What is the "perfect food" for growing children? Milk.
2. Why is this called a perfect food? Because it is made up of the things that make all parts of our body grow.
3. Name at least four vegetables that help children grow strong.
4. How often should we eat vegetables? Daily.
5. Should we eat just one kind? No, we should eat six or eight kinds.
6. Name some of the cereals that we should eat.
7. Why are cooked cereals better for us?
8. Name three fresh fruits and three cooked fruits that are good for children.
9. How often should we eat fruit? Every day.
10. May children eat meat? Yes, a small piece each day.
11. May children eat pie or cake or ice cream? Yes. After they have eaten a plate of food which was made up of a large service of vegetables, dark bread and butter, and a small piece of meat.
12. When you go home today will you tell mother:
    a. That you want to eat vegetables, fruits, and cereals daily?
    b. That you want to drink a glass of milk after each meal?
    c. That you will eat the plate of food served to you before you ask for your dessert?
    d. That you do not wish to drink tea or coffee?

Teach the following song:

BILLY BOY

"Will you have something to eat, Billy Boy, Billy Boy,
Will you have something to eat, charming Billy?"
"Yes, I'd like an apple red
Or a juicy orange instead,
For, oh, I would be both well and happy."

Elimination

To the teacher:

When you teach the lessons on food, it seems the logical time to present the subject of elimination, as the habit of going to the toilet daily is very largely dependent upon the intake of proper foods. Teachers vary in their attitude toward teaching this subject. Perhaps the reason for failing to teach the subject has been a lack of knowledge of the important points to be presented. When we realize that chronic constipation is one of the chief causes of many of the illnesses of childhood as well as of adult life, we are impressed with the importance of teaching children the simple health habits that forestall this condition. Why not present this lesson just as you would any other health lesson?

Base your teaching upon the following points:

1. Children should have a complete evacuation of the bowels at least once a day—preferably in the morning after breakfast.
2. Children should eat the foods that help form this habit; they are the leafy green vegetables, the juicy fruits or cooked fruits, and the coarse cereals.
3. Children should drink at least four glasses of water daily.
4. Children should play in the open air at least one hour daily.

FOOD (*Continued*)

Stories on food that appeal to children

"A Garden Party," by Kathryn P. Custer, published in *The Youth's Companion*, September 7, 1922. Perry Mason Company, Commonwealth Avenue and St. Paul Street, Boston, Massachusetts.

"The Little Vegetable Men," from *Cho-Cho and the Health Fairy*, page 23. Macmillan Company, 60 Fifth Avenue, New York.

Suggestion for morning inspection

Select a boy and a girl as inspectors. Costume them as Santa and Mrs. Santa Claus. The boys should line up on one side of the room and the girls on the other side. Have Santa inspect the boys and Mrs. Santa Claus inspect the girls.

LESSONS I AND II

Weigh all the children. Record their weights on the classroom chart. Have each pupil write his weight on a slip of paper to take home. Have those who have gained in weight stand, and permit the rest to cheer for them. Conduct a short discussion of things they should do to help them gain. Emphasize the value of food and rest.

LESSONS III AND IV

The Health House

The Health House as pictured is a most fascinating hygiene project. This one is stuccoed with oatmeal,

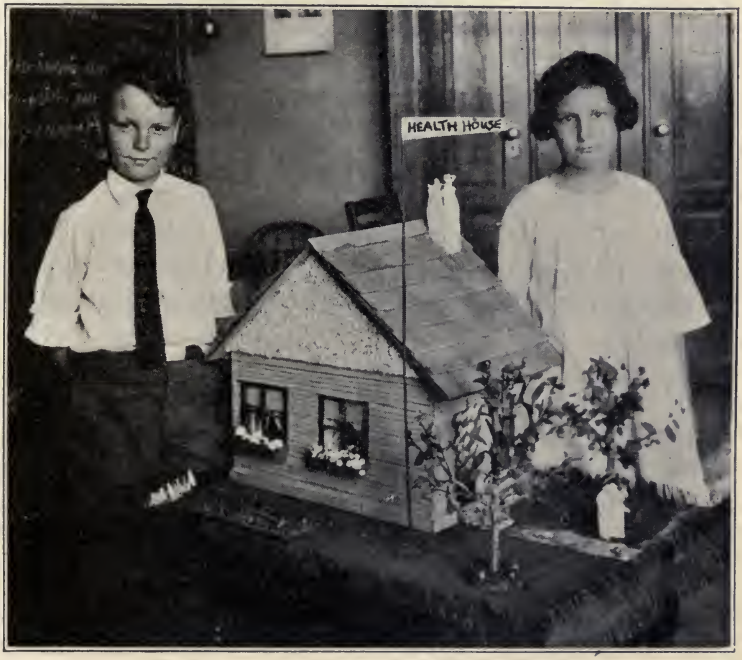

FIG. 19. THE HEALTH HOUSE PROJECT

shingled with graham crackers, and its chimney is a milk bottle. The front walk is of vegetables (pictures), and the two trees in the front yard are fruit trees—an apple and an orange tree. To the left side is a vegetable garden in which are growing onions, carrots, spinach, and other vegetables (made of green paper). The

frame of the house was provided by the teacher, and different pupils were permitted to work on it. Certain health habits were required of the pupils to make them eligible to work on the house. The boy and girl pictured did the greatest amount of work because they met the highest health requirements.

Every child in the room came up to his expected height-weight. They all reported on eating vegetables daily, drinking milk daily, and an eight o'clock bedtime hour. You will find it well worth the time and effort to build a health house. Two class periods have been given for the building of the house. Following these you may find it convenient to permit a couple of children to work on it a few minutes each day after the morning inspection.

LESSONS V TO VIII (*Inclusive*)

Menus

We present on the following page suggested menus for children from eight to ten years of age. Discuss them with the children, and for the next four lessons have the children discuss menus for breakfast, lunch, and supper or dinner, bearing in mind the food rule:

A maximum of vegetables, fruits, cereals and milk; and a minimum of meats, sweets, and pastries; neither tea nor coffee.

Remember especially to avoid criticism of an individual diet except in a very constructive manner. Children are not at fault if the right kinds of food are not offered them in their homes. Nevertheless it is important to encourage them to live up to certain standards.

Breakfasts

1

One orange
Corn flakes, 1 cup, with milk
Egg
Brown bread and butter, 2 to 3 slices
Milk to drink, 1 glass

Note. Where a prepared cereal is used, we suggest an egg be given to supply the required food value.

2

Oatmeal, ⅔ cup, with milk
Brown bread and butter, 2 to 3 slices
Baked apple, 1
Milk to drink, 1 glass

Note. With a liberal service of cooked cereal, an egg is not necessary.

Dinners

1

Dried-pea soup, 1 cup
Baked potato
Brown bread and butter, 2 to 3 slices
Lima beans, 2 tablespoonfuls

Note. Where the protein is supplied in baked beans, a meat service is not required.

2

Small piece of meat loaf or beef
Spinach, 2 to 3 tablespoonfuls
Carrots
Corn bread and butter, 2 to 3 slices
Dates, 4 to 5

Note. Where meat is served, at least two or three vegetables should be included, one of which should be a green, leafy vegetable.

Suppers

1

Potato soup, with milk
Poached egg on toast
Brown bread and butter
Stewed prunes
Milk to drink, 1 glass

2

Rice and milk
Corn bread and butter, 2 slices
Ginger cookies, 1 to 2
Milk to drink, 1 glass

To the teacher:

If you care to, you may develop a grocery store project as described in Grade IV, November, Lesson III.

Teach the following song:

BILLY BOY

"Do you eat your cereal, Billy Boy, Billy Boy,
Do you eat your cereal, charming Billy?"
Cereal "Cereal I always eat
Or my breakfast's not complete,
For, oh, I would be both well and happy."

JANUARY

MOUTH HYGIENE

Stories on teeth that appeal to children

"Our Little Enemies," from *Keep Well Stories for Little Folks*, page 71, by Mary Farenhalt Jones, M. D. J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

"How Colds Travel," poem by Giulia H. Luginbuhl, from *Hygeia Magazine*, September, 1923. American Medical Association, Chicago, Ill.

Suggestion for morning inspection

Have each child make a "health tag." This may be made of a small card upon which he draws something symbolic of health. The drawing may be an apple, an orange, a toothbrush, a milk bottle, or anything that he may choose. Every child who meets your requirements is allowed to have his tag attached to his desk for the day.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Have each pupil write his weight on a slip of paper to take home. Have those who have gained stand, and permit the rest to cheer for them. Conduct a short discussion of the things they should do to help them gain. Emphasize the value of food and rest.

LESSON III

Care of the teeth

To the teacher:

The care of the teeth is a most important health problem with children in this grade. The second or permanent teeth are now beginning to appear. These teeth should be expected to last through life, and they must be given very good care from the beginning. There are four important facts concerning the care of the teeth which you should thoroughly impress upon the minds of the children. They are these:

1. We must eat certain foods to grow teeth, just as we eat foods to make other parts of our body grow.
2. We must exercise our jaws by chewing our food thoroughly. This makes the jaws develop and gives plenty of room for our second teeth.
3. We must brush our teeth properly at least twice a day.
4. We must watch our six-year or first permanent molars.

The six-year molar is a new subject introduced in this grade. While these teeth appear at about the age of six years, it seems that children in the first and second grades are a bit too young to be impressed with their importance. The essential facts to be taught about the first permanent or six-year molars are:

1. They appear at about the age of six years.
2. They are the first permanent teeth.
3. There are four permanent molars, two upper and two lower.
4. To locate them, begin with your central incisor and count back to your sixth tooth, both upper and lower jaws.
5. Notice that the molars are larger than the other teeth and deeply grooved. Food settles in these grooves, and unless they are kept very clean they decay very easily.
6. They are large and strong and act as guides to the other permanent teeth by causing them to come in in their proper places.

7. If you lose your six-year molars before the permanent teeth are in their places, the permanent teeth will come in out of line.

Foods that develop the teeth

Inspect the teeth of the children. Select two or three who have well cared-for teeth. Have them show their teeth to the other children. Develop a lesson on foods we should eat to make strong teeth. In teaching this lesson present these foods as the important ones that should be used daily: milk, leafy green vegetables, fresh and cooked fruits, and cereals. Among the essential vegetables are spinach, carrots, peas, beets, lettuce, raw cabbage, and celery.

LESSON IV

Exercise of jaws

Develop a lesson on exercise of the jaws. Teach the children that the jaws need exercise to make them grow so that there will be plenty of room for the permanent teeth. These teeth are larger and stronger than the temporary teeth and require more room.

Have the children tell the different kinds of exercises they take to develop different parts of their body.

Have them name the foods they should eat to exercise the jaws.

LESSON V

Six-year molars

Develop a lesson on the six-year molar, emphasizing the essential points as given in the notes. If possible, have a hand mirror and permit the children to look at their molars.

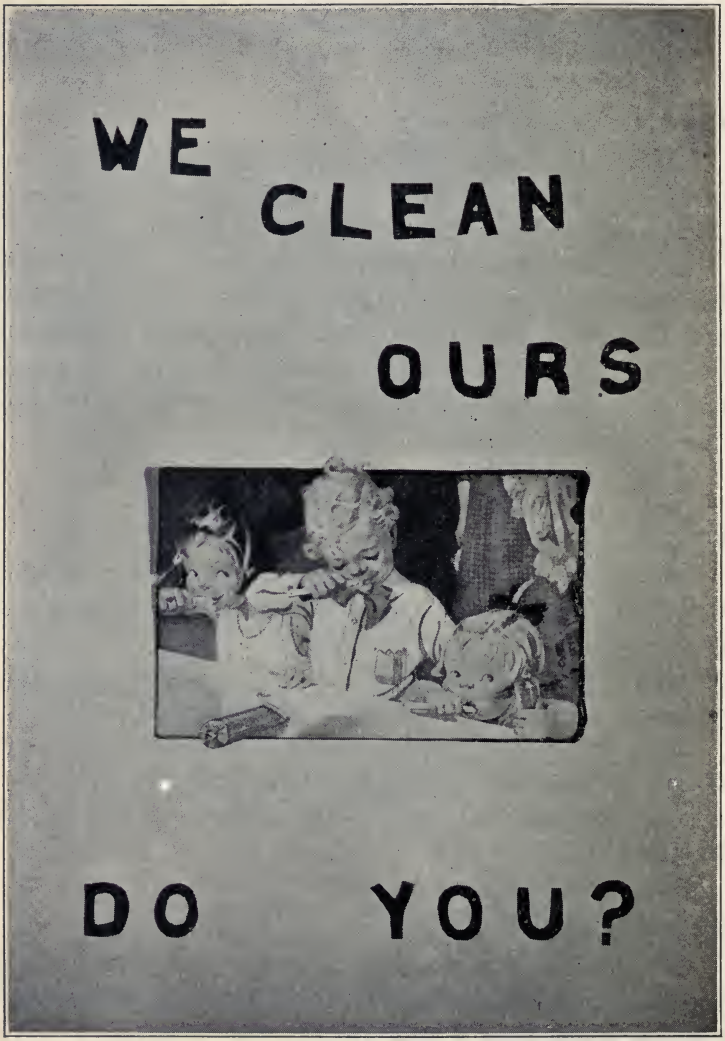

FIG. 20. POSTER ON CLEAN TEETH
(PICTURE CUT FROM MAGAZINE)

LESSON VI

Survey to find the number of children who have toothbrushes and who brush their teeth twice daily. Explain that a child's brush:

1. Should not be too large.
2. Should have stiff bristles.
3. Should be used only by himself.

Encourage each of the children who have not brushes to try to get one.[1]

LESSON VII

Aim: To teach children the value of good teeth and how we may preserve them

Approach:

1. Select a picture of a boy or girl showing clean, even teeth.
2. Discuss the clean, even teeth.
3. Does the child look happy? Why?
4. Why do you think his teeth are so pretty and white? Because he keeps them clean.

Presentation:

1. What do your teeth do for you? Bite and chew our food.
2. Which teeth bite the food? Front teeth.
3. Which teeth chew the food? Back teeth.
4. Why do babies need no teeth? Milk is their only food.

[1] Many of the toothbrush companies furnish brushes at a very reasonable price. The children who would not otherwise buy one may do so if you can supply them at a low cost. The toothpaste companies are usually very liberal with samples of toothpaste if you ask for them.

5. Which four teeth come into our jaws when we are about six years old and should stay as long as we live? First permanent molars.
6. How may we locate these teeth? Begin with the front tooth and count back to the sixth.
7. Why are they so important? They do most of the work of chewing; they cause the rest of our teeth to come in in their proper places.
8. What should we do so that these teeth will not decay? Keep them clean.
9. How often should we clean our teeth? Twice each day—before breakfast and before bedtime.

Survey again to find the number who have brushes at home.

LESSON VIII

Sing the following song:

BILLY BOY

"Do you always brush your teeth, Billy Boy, Billy Boy,
Teeth Do you always brush your teeth, charming Billy?"
"I can answer right away
That I brush them twice a day,
For, oh, I would be both well and happy."

FEBRUARY

MOUTH HYGIENE (*Continued*)

Stories on teeth that appeal to children

"An Evening Talk," from *Healthy Living*, Vol. I, page 190, by Winslow. Charles E. Merrill Company, 440 Fourth Avenue, New York.

"Daniel Boone, the Indian Fighter," from *Healthy Living*, Vol. I, page 156. Charles E. Merrill Company.

Suggestion for morning inspection

Continue the use of the health tags. This month make one large tag for each row instead of individual tags.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Have each pupil write his weight on a slip of paper to take home. Allow those who have gained weight some special privilege. Try to determine the reasons for individual losses and gains.

LESSONS III TO VIII (*Inclusive*)

Toothbrush demonstration

To the teacher:

You should be able to obtain very satisfactory results in teaching children in this grade how to brush their teeth. With the children below this grade it has been difficult to teach a definite process of brushing the teeth because with

young children the process requires much individual attention which often the teacher has not time to give. The permanent teeth are appearing at this age, and dental decay in these teeth is a serious condition. The habit of brushing the teeth twice daily is an important preventive measure. A toothbrush drill given to an entire schoolroom of children does not seem to accomplish the desired results. It seems that the best way to teach the process of brushing the teeth so that the child will get the clearest understanding is to plan to give as much individual attention as possible. We recommend that four or five children be instructed to bring their brushes; remind them to place the brush in an envelope or to wrap it in clean paper. Take this group from the schoolroom to a place where there is running water, or provide a pitcher of water, a basin, and individual drinking cups (see Figure 62, page 548). If you do not have tooth-paste, you may use a little salt or soda, which, excepting for the taste, is equally good.

The process of brushing the teeth is a subject which is very much discussed and which affords a great variance of opinion among members of the dental profession. However, the following method seems to be quite generally accepted:

Order in which the teeth should be brushed:

1. Brush inner surfaces first.
2. Brush chewing surfaces.
3. Brush outer surfaces:
   - *a.* Back teeth
   - *b.* Side teeth
   - *c.* Front teeth

Methods of using the brush:

1. Open the mouth enough to allow an easy motion of the brush.
2. Use a rolling motion of the wrist, not the force of the whole arm.
3. Brush upper teeth down.

4. Brush lower teeth up.
5. Include the gums on the strokes — brush vigorously.
6. Use at least ten strokes to each movement. (By this we mean ten strokes to the back teeth, ten to the side teeth, and ten to the front teeth in both the upper and lower jaws.)
7. Rinse the brush often.
8. When the brushing is finished, rinse the mouth several times, forcing water back and forth through the teeth.

Call attention to the feeling of cleanliness. Have this group show the other children their clean teeth. The entire month is given for these drills so that every child may be given an opportunity of going through them. These children will take great pride in showing the older pupils how they brush their teeth. Incidentally, it will be a good object lesson to the older pupils.

Include a report on brushing the teeth in the morning inspection.

MARCH

REST; HANDKERCHIEF DRILL

Stories on rest that appeal to children

"The Land of Somnus," from *The Most Wonderful House in the World*, page 21, by Mary S. Haviland. J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

"In the Garden of Sleep," from *The Land of Health*, page 123, by Hallock and Winslow. Charles E. Merrill Company, 440 Fourth Avenue, New York.

FIG. 21. THE HEALTH SHIP

Suggestion for morning inspection

Make a poster of a large ship. Have white sails, each sail representing a health chore. When the health chores have been observed by all of the children, the sails remain white; when the health chores have not been observed, the sail representing the chore not kept should be covered with a black or pirate sail. The object is to keep the sails white.

LESSONS I AND II

This is the month in which the children should be *measured* as well as weighed. Record their height and weight on the classroom chart, and have each pupil write his weight on a slip of paper to take home. Allow those children who have gained weight some special privilege. Try to determine the reasons for individual losses and gains.

LESSON III

Hours of sleep

To the teacher:

One of the important habits governing child health is long and regular hours of rest. While you must depend upon mothers to enforce this habit of an early bed hour, you can do much through group teaching toward encouraging it. Often the spirit promoted by the school facilitates this matter in the home. Effective rest campaigns have been organized through groups of mothers who live in the same block or community; each one agrees to have her children in bed by eight or nine o'clock. This prevents the abused feeling of the child who is called in from the group to go to bed while the rest are allowed to stay out and play.

Encourage the underweights especially to observe an eight o'clock bedtime hour. This is often the important factor governing their underweight.

Have the children bring pictures on sleep cut from magazines.

Develop the health lesson: "I should be in bed by eight o'clock each school night."

Survey to find the number of children who observe an eight o'clock bedtime hour. Have them discuss the reasons why they should be in bed early.

LESSON IV

Bedtime duties

1. Remove all day clothing.
2. Wash face, hands, ears, and neck.
3. Brush teeth.
4. Go to the toilet.
5. Have windows open so that there will be plenty of fresh air.
6. Sleep alone if possible.

The bed should be smooth and firm. The pillow, if used at all, should be soft and flat. A child should lie straight on his face, on his side, or on his back. (Children make progress in growth during their hours of rest, and as we expect them to be in bed nearly one-half of their time, it is quite as important to maintain a good posture in bed as it is during the waking hours.)

LESSON V

Sing the song "Billy Boy," which you will find on the following page.

BILLY BOY

"May I ask how long you sleep, Billy Boy, Billy Boy,
May I ask how long you sleep, charming Billy?"
"Yes, ten hours each night I rest,
For I know that it is best,
Rest And, oh, I would be both well and happy."

"When you sleep have you fresh air, Billy Boy, Billy Boy,
When you sleep have you fresh air, charming Billy?"
"Yes, I know that it is right
Fresh To have windows up at night,
Air For, oh, I would be both well and happy."

LESSON VI

Pantomime

Have bell or something that will strike.
One stroke for 7:30.
Children go through motions standing:
Remove clothing.
Place it on a chair.
Put on gown.
Wash face, hands, ears, and neck.
Brush teeth.
Open window.
Ten deep breaths.
Clock strikes 8:00.
Sit down and drop heads on desks for sleep.
In short time clock strikes 7:00—time to get up, happy and bright.

LESSON VII

Have children make posters on rest. Place them in the health corner. Emphasize the eight o'clock bedtime hour.

LESSON VIII

Handkerchief drill

To the teacher:

While a handkerchief drill seems to be a simple process, it embodies several important health lessons. It teaches the child:

1. To blow his nose correctly
2. To cover up each cough and sneeze
3. To carry his handkerchief daily
4. To care for his handkerchief properly

You will find it convenient to keep paper napkins or white cloths to supply children who do not have a handkerchief.

The drill:

1. Each child should have a clean handkerchief or a clean cloth.
2. With mouth slightly open, close one nostril and blow gently three times through the other one. (Do not have him blow both nostrils at the same time, as he may blow infection into the ears and sinuses which may cause serious trouble.)
3. Have him fold the handkerchief with the soiled portion inside and put it into his pocket or a clean place.

Explain the reasons for the drill to the children. Encourage them to keep the handkerchief put away.

They are often tempted to chew on it or handle it carelessly.

Sing the following song:

BILLY BOY

"Do you cover up each sneeze, Billy Boy, Billy Boy,
Cover up Do you cover up each sneeze, charming Billy?"
Sneeze "Yes, I cover up each sneeze,
I don't wish to spread disease,
For, oh, I want others well and happy."

APRIL

EXERCISE; CARE OF THE EYES; CHEERFULNESS

Stories on rest that appeal to children

"Nancy's Dream," from *Healthy Living*, Vol. I, page 139, by Winslow. Charles E. Merrill Company, 440 Fourth Avenue, New York.

"A True Story," from *Keep Well Stories for Little Folks*, page 42, by Mary Farinhalt Jones, M. D. J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

Suggestion for morning inspection

Continue the use of the Health Ship. We suggest a slight change in its presentation. Have the names of the pupils on your desk. Draw a name each morning. The child whose name is drawn should stand before the Health Ship and read the chores. The sails of the chores he has observed remain white; the sails of the ones he has not observed must be covered with a black sail. (Do not discard the names as you draw them. If you do, the child may feel that it is his privilege to be careless for the rest of the month. Let each child realize that his name may be drawn more than once. If he fails the first time, it may encourage him to have his second chance on a day when he is able to meet the requirements.)

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Have each child write his weight on a slip of paper to take home. Allow those children who have gained weight some special privilege. Try to determine the reasons for individual losses and gains.

LESSON III

Have the children learn this:

HEALTH YELL

Who are we? Who are we?
A clean third grade, as you can see.
We're for cleanliness day and night.
We're happy and healthy, all right, all right.

Hip, hip, hooray!
Don't get in our way.
We're all Health Workers
And don't care for shirkers.

LESSON IV

Exercise

Aim: To teach:

1. That all children need to exercise
2. How children should exercise

Procedure: Observe the following procedure:

1. Have the children imitate the way different animals move. How does the bird move when she leaves her nest in the tree? Flies. How does the squirrel move when looking for acorns? Runs. How does the chicken move when it is

looking for some corn? Walks. When you call it? Runs. When it goes to its perch? Flies. How does the duck move around the barnyard? Waddles. When in the water? Swims.

2. Discuss the movements of the baby as it grows: Stretching, kicking, creeping, walking, running, jumping.
3. How do boys and girls exercise?
   Walk, run, jump, skip, skate. Name some of the games children play.
4. How do the older members of the family exercise?
   Brother: Plays baseball, football, basketball, skates, swims.
   Sister: Dances, plays tennis, skates.
5. Where should children play? Outdoors. In the park. In the woods. *Not* on the streets. Why?
6. How may children exercise by helping father and mother?

Sing this song:

BILLY BOY

"Oh, where have you been, Billy Boy, Billy Boy,
Oh, where have you been, charming Billy?"
Exercise "I have been outdoors to play,
I must do that every day,
For, oh, I would be both well and happy."

LESSONS V AND VI

Play a vigorous game outdoors if possible. If not, have all of the schoolroom windows open and let the

children play their favorite indoor game. Emphasize the physical exercises that are recommended by your physical education department. If you have no such department, refer to page 580 for exercises. Emphasize the value of fresh air and exercise.

LESSON VII

Care of the eyes

To the teacher:

Children should be taught some of the simple but important points about the care of their eyes. Very many of the accidents which impair or totally destroy the sight are caused by carelessness, either on the part of the child or on that of the parent. Children should be taught that it is very dangerous to have lye, ammonia, or strong washing powders in a home where there are small children; children should also be taught that they should not play with "nigger" shooters, bean shooters, B-B guns, bows and arrows, or other playthings in this class. Sharp-pointed instruments, such as pointed scissors and pointed knives, are also very dangerous. In connection with the above facts teach these points:

1. The eyes should be washed daily with clean warm water.
2. Clean towels or clean cloths should be used in drying the eyes. (Never use a public towel.)
3. The eyes should not be rubbed with dirty hands.
4. Eyewashes and other medicines should not be used in the eyes unless a doctor has directed their use.
5. Children who have been fitted with glasses should wear them daily until their physician has directed them to do otherwise.
6. Reddened or inflamed eyes should not be allowed to persist. They should be treated by a physician.

Read "The Responsibility of a Teacher," on page 524.

LESSON VIII

Cheerfulness

To the teacher:

Do we realize how far-reaching a discussion on cheerfulness and courage might be? It is often very disheartening to know how freely the disappointments or tragedies of life are discussed and brooded over by parents in the presence of the children. In presenting a lesson, emphasize the importance of being cheerful in the home, especially at mealtime and when helping with the daily tasks.

Develop the lesson on cheerfulness: "I try to keep cheerful, straightforward, and clean-minded and to be helpful to others."

Tell or read a cheerful story to the children. Ask them to retell the story at home.

Have the children make posters of pictures of happy, healthy children. Place these posters in the health corner.

MAY

SUGGESTIONS FOR VACATION

Suggestion for morning inspection

Crown May Queens to do the morning inspection as suggested in Grade II, May.

LESSONS I AND II

Weigh the children. Record their weights on the classroom chart. Have each pupil write his weight on a slip of paper to take home. Allow those who have gained weight some special privilege.

LESSON III

A review

Aim: To have children see the need for good health and to create a desire to attain it

Approach:

Q. What do you like to do best?

Ans. Play with dolls, read, roller skate, etc.

Q. Do you like to play with your dolls when you have a headache or a toothache or a sore throat? When do you like to play?

Ans. When we feel well.

Lesson:

This summer we are all going to grow healthy and strong. Discuss pictures of healthy children.

Does this baby drink milk or tea or coffee?

How are the windows of this boy's bedroom at night?

Does this boy play in the house or in the fresh air?

How often does this baby take a bath?

What are some of the things we must do if we wish to be healthy? Draw the answers from children and write them on board:

a. Have a clean body.

b. Drink milk every day.

FIG. 22. THE HEALTH PARADE

c. Eat plenty of vegetables, fruits, and cereals.
d. Keep teeth clean.
e. Play in the fresh air.
f. Sleep with the windows open.

If you could wish for anything you wanted, what would you wish for? Develop wish for health.

Compliment the children on the progress they have made in cleanliness and growth during the year. Connect this with their health habits during the summer. Encourage a visit to the dentist during the summer.

FIG. 23. ANOTHER SECTION OF THE HEALTH PARADE

LESSONS IV AND V

A health parade

A health parade is very attractive and will create much enthusiasm for health as the children prepare for it. The one pictured on pages 174 and 175 was planned to include the important health habits. The small floats shown represented fresh air and the health fairy. Others not shown represented cleanliness, food, and milk. The costuming and arranging were simple and very effective. The entire school was permitted to view the parade. We suggest that you work up a health parade.

LESSONS VI, VII, AND VIII

Have the children make a health book representing all of the health chores. This should be taken home to their parents. See pages 560–562 for suggestions.

GRADE IV

FOREWORD

To the teacher: Throughout the lower grades, we have made an effort to teach the children to build up and maintain daily habits of health. Our daily health standard requires habits of personal cleanliness, of proper food, of fresh air and exercise, of correct posture, of rest, and of cheerfulness. We feel that you should have a right to expect the health chores to be done with more precision in the fourth grade, as the children are old enough to be more independent in their actions. While the work as planned confines you largely to group teaching, you should be continually aware of the child who does not seem to keep up with the group in his health habits. Often the one who will not drink milk or who is overindulgent in eating sweets is the underweight, pale child who needs special attention. Through individual work you should make an effort to encourage him to improve. If there is a school nurse, you should engage her interest; it may be necessary for you to confer with the child's parents. In such case, connect your interest in the child's health largely with the possibilities of his progress in his school work.

The best results in promoting health interest seem to be obtained through requiring a daily check on personal health habits. For the first half of the year, the morning inspection, which has been introduced in the third

grade, should be continued. We suggest that during the second half-year each child should keep the record of his health habits by the use of a health chore folder (see pages 546 and 547, Figures 60 and 61). These folders may be purchased at a minimum cost from the National Tuberculosis Association, 370 Seventh Avenue, New York. The development of the Modern Health Crusade, which is put out by this association, is one of the most effective methods of promoting personal health habits. Its awards of pins and pennants for duty done are very fascinating to the pupils, and the results gained in health through this cheerful method of presentation are often beyond our expectation. Even though you do not use the entire crusade organization, you may obtain the chore folders. If you do not use these, you may have each pupil make his own. In presenting the chore folder, you should use your own judgment as to the chores you will include in the daily checking. If you feel the necessity for emphasizing habits of cleanliness, these should be included at first, and as progress is noted other health habits should be added.

We have given the first two lessons each month to the weighing of all pupils and the discussions of individual losses and gains. We have asked you to measure the pupils twice each year. The height and weight should be entered on a classroom record chart and a record should also be sent home to the parents. Classroom weight record charts may be obtained at a minimum cost from the American Child Health Association, 370 Seventh Avenue, New York; or from the Department of the Interior, Bureau of Education, Washington, D. C.;

or a local health agency may be able to supply you with them. If you choose, you may make a chart. See the illustration on page 489. If you have not been accustomed to weighing and measuring the children, this may seem a heavy demand to make. We have found that with careful planning thirty-five pupils can be weighed and measured in about twenty-five or thirty minutes. A pupil from an upper grade will be of aid in recording the weights. The pupils will be much more interested in weigh-day if you yourself weigh them. Your personal approval of their progress will encourage them. Pupils should be directed to remove unusually heavy coats or sweaters, unless these are worn to replace necessary clothing. In such case, you may allow for extra weight. The shoes need not be removed.

Children who are within the margin of 10 per cent above or below weight, all other conditions being acceptable, need not arouse your special concern. Your object should be to teach the pupils that "a growing child should gain in weight every month; he should not lose or remain the same." Your interest should extend beyond this teaching, however. You should try to determine the *reasons* for individual cases of underweight and of failure to gain in weight. The article on "Malnutrition," page 492, includes many of the facts you will need to know in determining the reasons for individual underweights. Try to make the weigh-days cheerful and interesting. It is as necessary to express your satisfaction and delight in a child's progress in growth and health as it is to praise him for good scholarship. After all, the basis of his ability to learn is good physical regimen.

The pupils will be interested in developing throughout the year the health corner as directed. Select a wall space upon which may be placed the attractive posters that are made each month. Keeping these before the pupils helps to maintain their interest in health.

It has been our plan to present the same subjects at the same time throughout all of the grades so far as it seems practicable to do so. For example, we teach children of all ages to drink milk. In the lower grades we encourage the children to drink it; in the upper grades, we teach not only that they should drink it, but *why* it is a perfect food. Where there are several children from a home, the older ones learn the reasons which apply to their health habits and to those of their younger brothers and sisters, and this knowledge and this interest in health are carried into the home.

The lessons as outlined for this grade have been planned with the thought of making them interesting to pupils in either urban or rural communities. If it seems more convenient, plan to correlate them with your language, your reading, or other class subjects.

Our final goal is to create within the pupils a keen sensitiveness to habits of right living. We believe that the interest which you arouse in the daily check of the health chore folder is the best method of stimulating healthy living.

Subject matter has been prepared for two class periods each week.

SEPTEMBER

PERSONAL CLEANLINESS

LESSON I

Standard of cleanliness

To the teacher:

In schools where a program of hygiene has been consistently followed, the children at the age of nine and ten years should have acquired habits of cleanliness. Because most of our public schools have not been organized on this basis, and owing to the various types of homes from which the children come, this ideal standard has not been reached by the greatest number of children. Therefore we should accept the responsibility of raising the standard of personal cleanliness. Throughout the lower grades, we find it most practicable to interest the children by the use of the demonstration on "How to Get Ready for School." If your pupils need the demonstration, you may find it interesting to direct one as given in the third grade, page 125. You may ask a lower-grade teacher to send to your room a pupil who will put on the demonstration. Following it, have a class discussion emphasizing the important points in getting ready for school.

In working toward a standard of cleanliness, try to interest the careless children through group teaching. Avoid embarrassing any child, regardless of his appearance, by referring to his untidiness in the presence of the other pupils. Let your object be to make cleanliness so attractive that the pupils will be eager to attain it.

Tell the story "The Imps and the Good Fairy," which you will find on the following page.

The Imps and the Good Fairy

The Good Fairy was worried. The Imps had visited the home of Happy Child and had done much mischief there. Little Happy Child had always been healthy and happy until the Imps entered his home. Now the Good Fairy was kind and she wanted to see Happy Child strong again, so she went to see Wise Old Owl and asked his advice on what was to be done. Wise Old Owl blinked his eyes for a very long time and then he said, "Didn't the Bright Moon teach you how to make dreams?"

"Yes," said the Good Fairy. "She taught me to make lovely dreams for little children."

"Then," said Wise Old Owl, "get your rainbow cloth and weave four beautiful dreams for Happy Child." And then he whispered something to the Good Fairy, and the Good Fairy laughed right out loud, she was so happy.

Home ran the Good Fairy and took down from the sky her beautiful rainbow cloth. And she began to spin. And as she spun she sang a song, for she was very, very happy. When the dreams were all finished, she called Night Wind to her.

"O Night Wind," said she, "tonight when Happy Child is sleeping, will you blow softly through his open window and give him the first one of these beautiful dreams?"

"Of course I will," said Night Wind.

That night Happy Child smiled in his sleep. A beautiful Dream dressed in rainbow cloth and stars came to talk to him.

"What makes you so beautiful, little Dream?" asked Happy Child.

"Well," said the little Dream, "Good Fairy wove me from rainbow cloth and stars. But if I want to keep myself beautiful I must keep my face, my ears, my neck, and my hands

always clean. I shall do it, for I want to be happy. And if little Dreams do not do as they should, they are sad."

"I like you," said Happy Child. "Will you come to see me again?"

"I will if you keep your face, your ears, your neck, and your hands clean all the time," said the little Dream. And then she rode out again on Night Wind.

In the morning Happy Child remembered what the beautiful Dream had said, and when he was getting ready for school he carefully washed his face, his ears, his neck, and his hands.

That night when Happy Child lay sleeping again Night Wind blew softly through his open window and carried two beautiful little Dreams to him. The first little Dream kept her word and came back, for Happy Child had kept himself clean all day.

"Oh, goody!" said little Happy Child. "You have come again. And what a lovely little sister you have with you! Why are you so beautiful?" he said to the second little Dream.

The second little Dream answered, "Well, the Good Fairy wove me from rainbow cloth and raindrops. But if I want to keep myself beautiful I must brush my teeth twice a day. I shall do it, for I want to be happy. And if little Dreams do not do as they should, they are sad."

"I like you," said Happy Child. "Will you come to see me again?"

"I will if you brush your teeth twice a day," said the second little Dream. And then both little Dreams rode softly out on Night Wind.

In the morning Happy Child remembered what both the little Dreams had said. When he was getting ready for school he not only washed his face, his ears, his neck, and

his hands carefully, but he also brushed his teeth just as carefully. And that night just before he tumbled into bed he brushed his teeth again, for he was very anxious that the little Dreams should come back to him.

Sure enough, both little Dreams came softly riding on Night Wind in through Happy Child's open window. And with them came a third little Dream. Happy Child clapped his hands when he saw them. He was so glad to have them come again.

"Why are you so beautiful?" he asked.

"Well," said the third little Dream, "the Good Fairy wove me from rainbow cloth and rose leaves. But if I want to keep myself beautiful, I must see that my clothes are always clean and carry a clean handkerchief every day. I shall do it, for I want to be happy. And if little Dreams do not do as they should, they are sad."

"Oh, I like you!" said Happy Child. "Will you come to see me again?"

"I will if you keep your clothes clean and carry a clean handkerchief every day," said the third little Dream. And then all three of them rode softly away on Night Wind.

With a bound Happy Child jumped from bed the next morning. He laughed and laughed as he got ready for school, for he kept remembering the three little Dreams. Very carefully he washed his face, his ears, his neck, and his hands. Very carefully he brushed his teeth. And then just as carefully he saw that all his clothes were clean, that his little suit was nicely brushed, and that he had a clean handkerchief. Then off to school he went on a run. That night he remembered to brush his teeth before going to bed. He did not want to miss the visit of the little Dreams.

They came as they had promised, riding softly on Night Wind in through the Happy Child's window. And this

time there were four of them. Happy Child was too happy to speak to them for a while. He just lay and looked at the four beautiful little Dreams. Then he began to laugh, and as he laughed the four little Dreams began to dance. Finally Happy Child said to the fourth little Dream, "Why are *you* so beautiful?"

And the fourth little Dream answered, "Well, Good Fairy wove me of rainbow cloth and sunbeams. But if I want to keep myself beautiful, I must take a bath more than once a week. I shall do it, for I want to be happy. And if little Dreams do not do as they should, they are sad."

"Oh, I like you, too," said Happy Child. "Will you come to see me again?"

"I will if you take a bath more than once a week," said the fourth little Dream. And then all four little Dreams rode softly away on Night Wind.

Happy Child did not forget one thing the little Dreams had told him. Each day he washed his face, his ears, his neck, and his hands. Each day he brushed his teeth twice. Each day he saw that his clothes were clean, that his suit was neatly brushed, and that he had a clean handkerchief. And more than once every week he took a lovely, warm bath.

The Imps saw that they were beaten. So they went off into the woods to sulk. The Good Fairy was very, very happy, for Happy Child was well and strong again. And Happy Child was very, very happy, for the little Dreams came very often to see him. —Natalie Bassett Dumont.

LESSON II

Have the children retell or dramatize the story "The Imps and the Good Fairy." Discuss the five points in cleanliness which are emphasized, and write them on the blackboard as daily reminders.

LESSON III

Have the class discuss the following important points concerning cleanliness which should be observed daily:

1. Wash hands, clean finger nails.
2. Wash face, neck, and ears.
3. Brush the teeth.
4. Comb the hair.
5. Have clean clothes.
6. Have a clean handkerchief or cloth every day.
7. Wipe shoes. (Be sure to see that shoe laces or buttons are in good condition.)

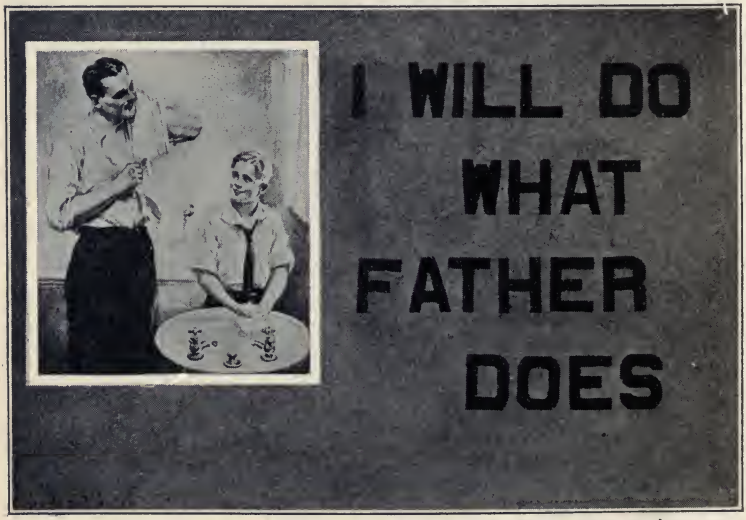

FIG. 24. POSTER (PICTURE CUT FROM MAGAZINE)

Have the pupils bring pictures on cleanliness cut from magazines. These will be used later for poster making.

LESSON IV

Pantomime: "Getting Ready for School"

Have one child play "Clock," striking his hands together for each quarter-hour, and permit the rest to go through motions.

7:00 A.M. Jump out of bed.
Pull the bedclothes over the foot of the bed to air.
Wash face, hands, ears, and neck. Clean finger nails.
Brush teeth.
Comb hair.
Put on clothing.

7:15 A.M. Brush shoes.
Brush clothes.
Have clean handkerchief.

7:30 A.M. Eat breakfast.
(Have pupils tell what they eat for breakfast.)

8:00 A.M. (Breakfast over)—rinse mouth—wash hands.

8:15 A.M. Ready for school.

Have the pupils write original rimes on "Getting Ready for School." The following rime was written by a fourth-grade pupil:

I wash my face,
I comb my hair,
I brush my teeth,
I breathe fresh air.
I eat my oatmeal,
I drink my milk,
I am healthy and happy,
And fine as silk.

LESSON V

Health creed

Beside the American flag place a health flag, which may be made of pure white with the word "Health" or any design symbolic of health which you choose upon it. After the salute to the American flag, have the pupils repeat the health creed.

MY HEALTH CREED

Four glasses of water I drink every day;
I always find time in the fresh air to play;
With windows thrown open for ten hours I sleep;
I'm careful to bathe more than once every week;
Each day I remember to brush my teeth twice;
I eat lots of fruit, for it's juicy and nice;
My face, neck, and ears and my hands I keep clean;
I dine very often on vegetables green;
I never drink coffee, I never drink tea,
I know that fresh milk is the best thing for me.
There's lots to remember, for this list is long,
But I am determined to be well and strong.

—NATALIE BASSETT DUMONT

LESSON VI

Morning inspection

In the Foreword to this grade we have included a paragraph on the morning inspection. You should organize the morning inspection at this time. (See Figure 16, page 131.)

We suggest the following method:

1. Explain the points in cleanliness that are to be checked.

2. Have the pupils sit in position with hands on desks and handkerchiefs in sight.
3. Appoint or permit the pupils to name an inspector for each row.
4. Have each inspector pass down his row and check the points which you are requiring.
5. As the inspectors finish, have them take their places at the head of the row and report on the cleanliness of their row.

You should display pleasure and interest in the children who comply with the request. Helpful suggestions should be offered to those who fail to meet the requirements.

While the morning inspection includes only habits of personal cleanliness, do not fail to discuss the other important health habits, which concern food, rest, fresh air and exercise, and posture.

LESSON VII

Tell the following story:

The Wooden Horse of Troy

Once upon a time the armies of the Greeks were at war with a people called the Trojans, who lived in the powerful city of Troy. For a long while the Greeks camped outside of the walls of the city and tried to capture it, but the Trojans with spears and arrows and great stones drove them off and killed some of their bravest leaders.

At last Ulysses, one of the wisest of the Greeks, thought of a plan by which to capture the city through a trick. The Greeks pretended to be giving up the attack, and their ships

sailed away and hid behind an island near by. The Trojans, thinking the war was over, poured out of the city where they had been shut up and eagerly examined the deserted camp of the Greeks. In this camp they found a very strange thing, an enormous wooden horse.

They were curious about this horse, for no one could think what it might be for. Some wanted to bring it into the city as a prize; others were afraid and advised that it be left on the seashore. At last they were persuaded that it would be a fine thing to have the wooden horse in the city. So they managed with great difficulty to get it inside the walls, and ended the day with feasts and rejoicing.

Now this is what the clever Greeks had done. The great horse was *hollow*, and inside it were Greek soldiers. In the night when the Trojans were all asleep, these soldiers came out and opened the gates of the city to the rest of the Greeks, who had sailed back and landed again after nightfall. In this way the mighty city of Troy was at last taken.

What do you suppose this story has to do with keeping well? Just this: The disease germs are our enemies, just as the Greeks were the enemies of the people of Troy. We can keep them out, just as the Trojans could have kept out the Greeks; but very often we do what the Trojans did. We bring the enemy into the city; we put the germs of disease right into our own mouths. Let us see how we can be on our guard against doing anything so foolish.—From Winslow's *Healthy Living*, Book One, by permission. Copyright, 1920, by Charles E. Merrill Company.

Discuss the story "The Wooden Horse of Troy" and develop the health lesson: "I should keep my hands and everything unclean away from my eyes, nose, and mouth."

LESSON VIII

Make posters on cleanliness. Place them in the health corner. See the illustration on page 552, Figure 66, for suggestions for an effective arrangement of this corner.

FIG. 25. POSTER (FREE-HAND CUTTING)

References

Gulick, *Good Health*, chapter xx, page 101. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

Haviland, *Modern Physiology, Hygiene and Health*, Book II, "Good Neighbors," pages 64–71. J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

Winslow, *Healthy Living*, Vol. I, chapter xii, page 132; chapter i, page 11. Charles E. Merrill Company, 440 Fourth Avenue, New York.

OCTOBER

FOOD; MILK

Suggestion for morning inspection

Organize an auto race. Have each row choose the name of a car. Write the names of the cars on the board. When every child in a row comes up to your requirements, place a star after the name of the car chosen by that row. The car that gets the most stars wins the race.

LESSONS I AND II

Weigh and measure the pupils. Record their weights on the classroom weight chart, which is illustrated on page 489, Figure 52. Have each pupil take a record of his weight home to his parents. (The Foreword to this grade contains two paragraphs on the weighing and measuring of children.) The article on "Malnutrition," page 492, will be helpful in determining reasons for individual losses and gains. For the average weights of boys and girls, see the Weight-Height-Age Tables, on pages 487 and 488.

LESSON III

Food habits

To the teacher:

Food takes its place as one of the most important subjects in hygiene with children of this age. They are coming into

their period of rapid growth, and their bodies require a variety of the right kinds of foods to meet this condition. A survey of hundreds of school children of this age leads us to believe that the greatest number of children are living on a diet made up largely of meat, sweets and pastries, tea and coffee. Because of this fact it seems that we should place our emphasis upon the natural foods which are so commonly overlooked, and which mean health and growth to the child. These foods are vegetables, fruits, coarse-grain cereals, and milk.

While children in this grade are old enough to regulate, to a certain degree, their food habits, we realize that the most satisfactory results are obtained where there is sympathy and coöperation between the school and the home. With this in mind, we believe your teaching should be kept positive. You should encourage the use of foods that stimulate growth and promote health; plan menus including these foods; discuss well-selected meals and use any methods which will bring the right kinds of foods before the pupils. When questions arise as to such foods as rich pastries, sweets, and large services of meat, class them as "not so good," and teach the children that they should eat only small portions of these foods. Try to keep before the child the idea of the foods he should eat to make him grow.

Vegetables form an important part of the child's diet. Each child should be able to name six or eight kinds of fresh vegetables which he likes and is willing to eat when they are placed before him. He should eat daily at least two kinds of vegetables besides potatoes. Leafy vegetables should be included generously in the diet. If some of the pupils admit a dislike for vegetables, do all you can to encourage them to develop a liking for these. Children are usually eager to grow and are impressed with the idea that vegetables promote growth. Some of the important ones to be eaten are spinach, raw cabbage, lettuce, carrots, beets, turnips, onions, celery, tomatoes, green beans, asparagus, cauliflower, and peas.

Cereals and coarse grains should be eaten daily. Their common usage is in bread and breakfast foods. The whole-grain cereals are the most nourishing. Cereals to be cooked contain more nourishment proportionately than the dry or prepared ones. Some of the nourishing ones are oatmeal, cracked whole wheat, wheatena, cream of wheat, whole-wheat bread, bran bread, and whole-rye bread.

Fruit should be eaten daily. It may be fresh or cooked fruit. Some of the best fruits are oranges, grapefruit, apples, peaches, plums, cooked prunes, and cooked figs.

Milk is one of the most important foods for growing children. There is no other one food which contains all of the properties of growth. It is essential to the growth and development of every part of the body. (Every child should be encouraged to drink some milk daily, unless he has been directed by a physician not to do so.) Read the article "All about Milk," page 499.

Coffee and tea are often carelessly given to children. Many parents do not seem to realize the ill effects of these drinks. Because coffee and tea have no food value, and are often injurious to the growing child, he should not drink them. Varied opinions seem to exist as to the effects of the use of tea and coffee on adults. This causes us to emphasize that it is *the growing child* who should not have them. We feel that if we emphasize the effects of tea and coffee on the *growing child*, we shall not develop a feeling of antagonism toward us if the parents themselves use these drinks. This teaching justifies the parents in encouraging the children not to drink coffee and tea.

In teaching food selections, develop the rule:

A maximum of vegetables, fruits, cereals, and milk
A minimum of meats, sweets, and pastries
No coffee or tea

Read the article on "Food," page 514, which includes many interesting facts on this subject.

Survey to determine the general food habits of the pupils in your room:

1. The number who eat vegetables daily; the kind of vegetables they eat
2. The number who eat fruit daily; the kinds of fruit they eat
3. The number who eat cereals daily; the kinds of cereals they eat

Discuss the reasons for eating vegetables, fruits, and cereals and develop the health lesson: "I should eat wholesome food, including vegetables, fruits, and cereals, and I should drink milk. I should not drink tea or coffee."

LESSON IV

Develop a lesson on the importance of drinking some milk every day. (The important points to be taught are included in the article "All about Milk.")

The milkman

Have the pupils cut milk bottles from drawing paper. Write on each bottle, "I drink milk every day." Let them select one of the pupils to be a milkman. (To qualify he must drink milk daily.) Collect all the milk bottles and give them to the milkman. Each morning as the other inspectors are doing their work, the milkman quietly passes around, and every child who reports that he drank milk the day before has a milk bottle fastened to his desk for the day. The milkman collects the bottles as school closes.

LESSON V

From the facts given in the note on foods, develop the lesson: "I should not drink tea or coffee."

Survey to find the number who drink tea and coffee. (The project of the "Milkman" will help overcome the coffee habit.)

LESSON VI

Discuss the following good food habits:

1. *Selection:*

   Plenty of vegetables, fruits, and cereals
   Three glasses of milk daily
   No tea or coffee
   Small quantities of meats
   Sweets and pastries only after other foods have been eaten

2. *Rate:*

   Chew food thoroughly.
   Drink slowly.
   Allow sufficient time for all meals.

3. *Regularity:*

   Eat at regular hours.
   Do not overeat at any meal.

Learn to enjoy your foods.
Be cheerful and happy while eating.
Be neat in appearance at all meals.
Be considerate of others.

Ask the pupils to bring pictures of food cut from magazines. These will be used later.

FIG. 26. POSTER ON MILK

LESSON VII

Demonstration

Prepare a breakfast table for two. If possible, supply it with real food. Discuss the selection and have two children demonstrate how to eat properly.

LESSON VIII

Have the pupils make food posters and original jingles on foods. (See Figures 32–34, pages 270–272.)

Examples of jingles written by pupils:

"Q" is for quaker oats,
Lots of milk on it too;
Puts lime in the bone
And "pep" into you.

"V" is for vegetables,
They're everyone's need;
The food upon which
The best nations feed.

"C" is for carrots,
Cheese, cocoa, and cake;
Give me my choice—
I know which I'll take.

References

O'Shea and Kellogg, *Health Habits*, chapter xv, page 141; chapter xiii, page 117. Macmillan Company, 60 Fifth Avenue, New York.

Rosenau, *The Milk Question*. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Pamphlets:

"Green Vegetables and Their Uses in the Diet" (*Agriculture Yearbook 1911*, Separate 582). United States Department of Agriculture, Washington, D. C.

Langworthy and Hunt, "How to Select Foods: II. Cereals," *Farmers' Bulletin 817*. United States Department of Agriculture, Washington, D. C.

NOVEMBER

FOOD (*Continued*)

Suggestion for morning inspection

Use a health ship this month. (See Figure 21, page 162.) Call it the "Mayflower." Have each pupil write his name on a slip of paper. When he meets your requirements, have him place his name in the ship. The object is to have all the names in the ship.

LESSONS I AND II

Weigh the pupils. Record their weights on the classroom weight chart. Have each pupil take a record of his weight home to his parents. Discuss the reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Nutrition and economy

Have the pupils play store. Write the names of all kinds of foods on small slips of cardboard or manila paper. (These should include milk, vegetables, pastries, fruits, coffee and tea, and other foods.) Place them on a small table or on your desk. Choose a storekeeper. Let different children go shopping; some buy foods for breakfast, some for lunch and dinner. Discuss the merits of the various purchases.

The pupils thoroughly enjoy the plan of the grocery store worked out in greater detail (Figure 27). Bogus packages of food are often obtainable from grocery stores or wholesale houses. These may be arranged to represent a store. Pasteboard money may be used.

FIG. 27. GROCERY STORE PROJECT

The pupils should be sent to market to buy food for breakfast, lunch, and dinner. Their purchases should be discussed from the point of view of selection, and the economical expenditure of money. While values cannot be taken up in great detail, the children can be taught to select the simple, nourishing foods which are less expensive. For example, one child may buy a five-pound sack of corn meal, a dozen oranges, a loaf

of brown bread, and a quart of milk; another may select a can of salmon, a loaf of white bread, a can of peaches, and a pound of coffee. Which pupil has made the wiser selection from the standpoints of health and of economy? This project affords excellent opportunity to develop the value of food from the standpoint of nutrition and economy.

LESSON IV

Have the pupils bring pictures of all kinds of good foods. Select the best ones and mount them individually on small sheets of cardboard.

LESSONS V AND VI

Arrange the mounted pictures in groups on a table, representing a cafeteria. Have different pupils pass along and select the foods that make well-balanced breakfasts, lunches, and dinners. This should be practiced until the children show a sensitiveness to the selection of the right kinds of foods.

LESSONS VII AND VIII

Menus

Have the pupils write menus of their daily meals. Discuss them, giving constructive criticism where necessary.

For your guidance the following planned menus are given with notes. Additional menus and food values are given on pages 496, 497.

Breakfasts

1

Oatmeal
Stewed fruit
Brown bread and butter
Milk to drink or hot cocoa made with milk

Note. With a liberal service of cooked cereal an egg is not necessary.

2

1 orange
Corn flakes with milk
Poached egg
Brown bread and butter
Milk to drink

Note. Where a prepared cereal is given, we suggest that an egg be used to supply the required food value.

Lunches

1

Rice and milk
Corn bread and butter
Ginger cookies
Stewed fruit
Milk to drink

2

Baked potatoes
Lettuce salad
Graham bread and butter
Stewed fruit
Milk or cocoa

Dinners

1

Carrots
Egg omelet
Boiled potatoes
Whole-wheat bread and butter
Celery
Fruit jello
Milk or cocoa

Note. Where the protein is supplied in the egg omelet, a meat service is not required.

2

Ground beef—Hamburg steak
Boiled potatoes
New beets and beet-top greens
Stewed fruit
Bread and butter

Note. Where meat is served, at least two or three vegetables should be included, one of which should be a green leafy vegetable.

References

Rose, *Feeding the Family.* Macmillan Company, 60 Fifth Avenue, New York.

Sandwall, *Food and Its Relation to Weight and Health.* Department of Public Health, Boston, Massachusetts.

Pamphlet: "Diet for the School Child" (United States Bureau of Education, *Health Education No. 2*). Washington, D. C. Free.

DECEMBER

TEETH

Suggestion for morning inspection

Cut large letters spelling "Merry Christmas." Hang the letters across the front of the room. Cut holly leaves the right size to decorate the letters. When every child in a row has met your requirements, permit the inspector to place a holly decoration on the letters. Aim to have the letters decorated by Christmas time.

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Have each pupil take a record of his weight home to his parents. Discuss reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Care of the teeth

To the teacher:

Effort should be made to bring the pupils of this grade up to a very high standard in caring for their teeth. Because of the loss of their temporary or baby teeth they have experienced somewhat the inconvenience of being without teeth. This experience may be used as an illustration of the calamity of losing the permanent teeth, which nature does not replace. The artificial teeth put in by the dentist are

much better than none, but they can in no sense replace one's own teeth. Unless you are teaching an unusually fortunate group of children, an inspection of the teeth of the pupils in your room will strengthen your belief in the importance of teaching the proper care of the teeth. More than one-half of the children of this age show dental decay and other teeth or jaw defects, and yet the greatest number of these defects are preventable if reasonable care is given the teeth and the gums.

We want to present four important facts to the pupils in this grade:

1. If children are to have straight, strong teeth, they must eat daily the foods that make strong teeth.
2. Children should keep the teeth as clean as it is possible to keep them. This means that they should brush the teeth at least twice each day — before breakfast and before bedtime. A brushing after each meal added to this would be even better.
3. Children should masticate food thoroughly so that their teeth and jaws may get plenty of exercise.
4. Children should watch their first permanent molars; keep them clean; upon the least sign of dental decay, go to the dentist.

Inspect the mouths of your pupils. Select several who have well cared-for teeth and show their teeth to the group.

Discuss the foods that are necessary to grow teeth:

1. Milk
2. Vegetables: spinach, lettuce, beet tops, asparagus, raw cabbage, and tomatoes (especially the leafy green vegetables)
3. Fresh fruits
4. Dark breads and coarse-grain cereals

Discuss importance of exercising the teeth and jaws:

1. Chewing exercises the teeth and jaws.
2. Not enough exercise leaves the jaws small and narrow and the second teeth are crowded or they come in out of place.
3. Chewing helps to make teeth straight and strong.
4. We should eat foods daily that make us chew (such as dark breads and coarse-grain cereals).

LESSON IV

To the teacher:

Because the six-year or first permanent molars play such an important part in the position and development of the temporary teeth, we want the children of this age to appreciate the value of these molars. In locating their molars, have the pupils begin with the front central incisor and count back to the sixth tooth. There are four six-year molars, two uppers and two lowers. They are called six-year molars because they appear at about the sixth year of age; often they are called first permanent molars because they are the first permanent teeth that appear.

Present the following essential points:

Your six-year molars [1]

These are the first teeth of the second set. They are called *six-year molars*. On each side of your mouth you will find them *right behind your last baby molars* in both the upper and lower jaws.

Keep the crowns of the six-year molars perfectly clean as soon as they come through the gums. *They decay more easily*

[1] Excluding the note in Lesson IV, Lessons IV, V, and VI are taken from Ferguson, *A Child's Book of the Teeth*. Copyright, 1918, by World Book Company, Yonkers-on-Hudson, New York.

than your other teeth. They have deep grooves on the biting surfaces which are liable to hold particles of food. These particles will cause decay in the tooth if they are not brushed away.

Between the ages of six and ten, when the baby teeth are being lost and the second teeth are coming into their places, *these six-year molars do most of the work of chewing your food.*

Watch for your six-year molars and keep them clean. They are often thought to be baby teeth and are allowed to decay.

The six-year molars are the *largest* and *most important* teeth of your second or permanent set.

On the end of a railroad track we often find what is called a "bumper." The bumper keeps the cars from leaving the track. Your six-year molars act as bumpers for your other permanent teeth! They cause the other teeth to stay on the track and come into their proper places.

Your teeth will be out of line if you lose your six-year molars before the permanent teeth are in their proper places! This coming in out of line will change the form of your face. Your teeth will not come together properly, and this will make it harder for you to cut and grind your food.

Be sure to take good care of your baby molars. Try to *keep them until your six-year molars are in their proper places.* The six-year molars should never be taken out if it is possible to save them.

Take good care of your six-year molars, or your teeth will run off the track. [Refer to Figure 35, page 278.]

LESSON V

Why you ought to keep your mouth and teeth clean

Do you like to eat clean food? Do you like to eat food from clean dishes? Of course, you do. Then see that you put clean food into a clean mouth.

You would not like to eat anything you knew was dirty. But *your food becomes dirty the minute you put it into a mouth that is not kept clean.*

Your teeth cut and grind your food into a pulpy mass. This mass is mixed with your saliva. If your teeth are not clean, if your teeth have holes in them which hold decaying food, or if any of your teeth are diseased, *your saliva will be filled with germs!* Then food mixed with this dirty saliva is taken into your stomach. The germs from the teeth and the poisons they produce enter the blood and are carried through the body. This is what causes a great deal of sickness! If you do not keep your teeth in perfect order, or if you do not brush your teeth after each meal and before you go to bed at night, *the food you swallow will be dirty.*

Do you like to smell a foul breath? Of course not. Then see that no odor comes from your mouth!

By keeping your mouth and teeth clean:

1. You save your baby teeth, which protect the second teeth that are forming underneath them.
2. You keep the natural form of your face.
3. You keep your health.
4. You will have strong, healthy second teeth and *you will be free from toothache!*

Remember that your teeth, by grinding your food, help to nourish your body and make it possible for you to live.

Brush your teeth after each meal and before you go to bed at night.

"Cleanliness is Next to Godliness!"

Help to make the world pleasanter to live in by keeping your mouth and teeth clean.

LESSON VI

The right way to brush your teeth

There are spaces between your teeth which must be kept clean. Use a toothbrush with a notched edge like a saw. Use a medium-sized brush with bristles of medium stiffness.

It is better to have two brushes if possible. By using one brush one day and the other brush the next day, you will make your brushes last longer and do better work.

You may use a small quantity of toothpaste if you like, but *remember that the most important thing is the brushing!* If you have no paste or powder, put a little salt in a half-glass of water and brush your teeth with the salty water.

You cannot keep your teeth perfectly clean unless you have them cleaned often by the dentist. The dentist can remove little spots where decay might start and can clean surfaces on your teeth that you cannot reach with your toothbrush.

Here are some other directions:

1. Do not press too hard on the brush.
2. Do not brush your teeth crosswise the way you would play a mouth organ.
3. It is a good plan to start brushing on the left side of your mouth one morning and the right side the next morning. You know that when you are brushing your teeth the powder washes off the brush. So if you always begin brushing on the left side, the teeth on that side will get the most powder.
4. If your gums bleed when you brush your teeth, it shows that brushing of your teeth has been neglected.
5. If you will brush them regularly several times a day, the bleeding will stop and your gums will become hard and pink.

Do not be afraid to brush your teeth four or five times a day. *You cannot keep your teeth too clean!*

LESSON VII

Show the pupils the right kind of a toothbrush.

1. Brush should have stiff bristles.
2. Brush should not be too large.
3. Brush should be one's own.

Survey to find the number who have brushes and who use them twice daily.[1]

LESSON VIII

Dramatization

WHO SAYS SIX-YEAR MOLARS?

CHARACTERS

BOB — A boy in school clothes.
SISTER — A girl in school clothes.
FAIRY GOOD HEALTH — A girl in fairy costume with crown, wings, and wand.
SIX-YEAR MOLARS — Five girls and five boys wear white cardboard molar teeth on string around neck. One girl and two boys wear white cardboard molar teeth with decayed spots painted on them.
L. and R. mean the left and right of the characters on the stage when facing the audience.

[*Curtain rises, showing* BOB *and* SISTER *studying at L. front of stage. They frown and turn the pages of their books impatiently.*]

SISTER: I hate studying about these old molar teeth!

BOB: So do I. From what the books say you'd think the six-year molars were the most important part of the body.

SISTER: Well, what are they, anyway?

[1] If you are interested in supplying the pupils who are unable to obtain brushes, many of the large toothbrush companies will furnish a supply of brushes at a very low cost.
Many toothpaste companies will be very generous with samples of toothpaste upon request.

BOB: This book says, "They are the first of the permanent teeth to come in and are often neglected and allowed to decay because they are thought to be the last of what we call the 'first teeth.' "

[*Fairy Music*]

FAIRY GOOD HEALTH (*entering at right*): Dear, dear, dear! Did I hear somebody scoffing at six-year molars?

[BOB *and* SISTER *hang their heads sheepishly.*]

FAIRY GOOD HEALTH: Well, children, I am Fairy Good Health. I am going to show you the six-year molars are just as important as your book says. They are the largest and most useful of all the double teeth. If they are taken out, no other teeth will grow in their places.

[*She dances. Ends dance, waving wand toward L. wing.*]

FAIRY GOOD HEALTH: Six-Year Molars, come to me—make these little children see how the care they take of you makes or mars them all life through.

[*She keeps waving her wand while three healthy molar teeth march in; three decayed teeth slump in. They arrange themselves in a row, three good ones in front, three bad ones a little back and to R. of each good tooth.*]

FAIRY GOOD HEALTH: Thank you, Six-Year Molars. You came very promptly. I want you to tell the story of your lives to these children so that they can see "how the care they take of you makes or mars them all life through." Now, John [*tapping first big tooth*], you speak first.

FIRST TOOTH: I am the six-year molar of a great general. While he was a baby and a very small child, his mother gave him plenty of milk, vegetables, and the crusts of bread, so I had a good start. I came in when he was six years old. I hadn't any idea then what he was going to be, but he kept me clean and in good order, so I chewed hard for him and he

digested his food so well that he grew up fine and strong of body and brain.

FAIRY GOOD HEALTH: That's good, John. Now, Little John [*tapping second tooth with her wand*].

SECOND TOOTH: I am the tooth of a man you never heard of. I was not given the proper food, was never kept clean, and have always been in some state of decay. I hurt so when my John chewed his food that he just swallowed it in little chunks. Of course, that spoiled his digestion, and bad digestion hurt his growth. He was unhealthy, cross, stunted, and crabbed.

FAIRY GOOD HEALTH: All right, Celia, it's your turn.

THIRD TOOTH: I am the six-year molar of a beautiful, lovely motion-picture actress. While she was going to school she drank plenty of milk, four glasses each day, and ate leafy vegetables and fruits to build me and my comrades. I was so well taken care of that Celia grew up well and happy and her second teeth came in just the places they should. That is why her face is so pretty.

FAIRY GOOD HEALTH: Now, Fourth Tooth, it's your turn.

FOURTH TOOTH: I am the tooth of a Celia you never heard of. She meant to keep me strong and well, but her mother did not tell her which foods would make me strong and she used a gritty toothpaste that gradually scoured off the enamel. So, of course, I had to be watched for decay all of the time. In the end I had to be pulled, and Celia's face became all spoiled and homely, just because her teeth came in crowded, uneven, and protruding.

FAIRY GOOD HEALTH: Now, Pitcher Ted, it's your turn [*taps fifth tooth*].

FIFTH TOOTH: I am the tooth of the greatest baseball player in his day, and I have a little joke on him that I will tell you. He drank one quart of milk a day while he was

growing, because someone told him it would grow muscle, and every time I found milk coming my way I took a lot of lime out of it to build me up and make me strong and white. I never decayed and did my work so well that he grew up strong of arm and quick of eye and brain. I have helped him thrill thousands and thousands of people and earn thousands and thousands of dollars.

FAIRY GOOD HEALTH: And now, you [*tapping sixth tooth*].

SIXTH TOOTH: I am the tooth of a man you never heard of. I decayed when he was only eight years old, and, of course, lots of germs hid in my cavities. Whenever he ate, those germs mixed with his food, keeping him sick much of the time. If only he had given me a sound, hard coat of enamel by eating proper foods, such as milk, fruit, and vegetables!

FAIRY GOOD HEALTH: Thank you, Six-year Molars. I think the children begin to see how much you have to do with the way a person grows and develops. [*Looking off L.*] Here come some strong white teeth. [*Turning to decayed teeth*] I know that it isn't your fault that you aren't able to do the things these teeth are; no one took care of you or gave you the lime you needed to make you strong, but wouldn't you like to watch this drill over here?

[*Three decayed teeth step to back of stage as five good six-year molars come on. The three on stage join them—they do a drill, then sing:*]

[*Tune: "Auld Lang Syne"*]

If you're to be a general,
Who's very tall and grand,
If you're to be a pretty girl
And act in Movie-land,
If you're to grow up strong and fine
And do the things you dream —
Then you must use your toothbrush
And some good dental cream.

If you're to knock a home run
'Most every time you bat,
If you're to be a president
Or some one great like that,
If you would be a leader,
With me you will agree
That you must brush your molar teeth
And feed them properly.

[*March around singing—then off R.*]

—By courtesy of National Dairy Council

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Ferguson, *Child's Book of the Teeth.* World Book Company, Yonkers-on-Hudson, New York.

O'Shea and Kellogg, *Health Habits*, chapter xvi. Macmillan Company, 60 Fifth Avenue, New York.

Winslow, *Healthy Living*, Vol. I, chapter ix. Charles E. Merrill Company, 440 Fourth Avenue, New York.

JANUARY

TEETH (*Continued*); CARE OF THE EYES

Suggestion

During the period for the morning inspection, have the pupils tell the New Year's resolutions concerning health they are willing to make. Decide on the resolutions that should be accepted by the pupils as a group, and write them on the board.

LESSONS I AND II

Weigh all the pupils. Place the record on the classroom weight chart. Have each pupil take a record of his weight home to his parents. Discuss the reasons for individual losses and gains.

Arrange to obtain the health chore folders. These are to be presented at the beginning of next month. (The Foreword to this grade explains the use of the health chore folders and tells where they may be obtained.)

LESSONS III TO VII (*Inclusive*)

Toothbrush demonstration

To the teacher:

You should be able to obtain very satisfactory results in teaching pupils of this age how to brush their teeth. Because they have been taught in previous lessons the value of keeping the teeth clean, they should enter into the demonstration with a great deal of interest. The plan of teaching

an entire schoolroom of children as a group how to brush their teeth seems to be rather overwhelming to the teacher. It does not permit her to give time to those children who need it most. On the other hand, there is scarcely a teacher who can spare the time to teach each child individually. We recommend that groups of four or five pupils at a time be given a demonstration. They should be instructed the day before to bring their brushes the following day. This group should be taken to a room where running water is provided; or, if you do not have access to these facilities, a pitcher of water, a basin, and individual drinking cups may be supplied. This affords an opportunity for close supervision. (See Figure 57, page 498, for diagram of drinking cup.)

There is some difference of opinion among members of the dental profession as to the details of the right method of brushing the teeth. Satisfactory results have been obtained, however, by using the following method:

Order in which the teeth should be brushed:

1. Brush inner surfaces first.
2. Brush chewing surfaces.
3. Brush outer surfaces:
    a. Back teeth
    b. Side teeth
    c. Front teeth

Method of using the brush:

1. Open the mouth enough to allow an easy motion of the brush.
2. Use a rolling motion of the wrist, not the force of the whole arm.
3. Brush upper teeth down.
4. Brush lower teeth up.
5. Include the gums on the strokes — brush vigorously.
6. Use at least ten strokes to each movement. (By this we mean ten strokes to the back teeth, ten to the side, and ten to the front teeth in both the upper and lower jaws.)

7. Rinse the brush often.
8. When brushing is finished, rinse mouth several times, forcing the water back and forth through the teeth.

The entire month is given you for this work so every child will be given an opportunity of going through the drill.

LESSON VIII

Care of the eyes

Develop a lesson on the care of the eyes. Stress the following points:

1. The eyes should be washed daily with clean warm water.
2. Each child should have his own towel and wash cloth.
3. Towels supplied in public places, such as store toilets and depot toilets, should *never* be used, unless these are individual towels.
4. Neither medicines nor eyewashes of any kind should be used in the eyes unless a physician has directed their use.
5. A foreign body should be removed from the eye at once. Some one at hand may be able to remove it; if he fails, a physician should be consulted.
6. Reddened or "sore eyes" should not be treated carelessly. If these persist more than twenty-four hours, a physician should be consulted.
7. A book or other reading matter should be held from fourteen to sixteen inches from the eyes. (Show by actual measurement.)
8. The light should come from the back and fall over the left shoulder while one is writing or

reading. (If one is left-handed, the light should fall over the right shoulder.) The light should not be glaringly bright nor dark enough to be gloomy.

9. Children who have been fitted with glasses should wear them daily until otherwise directed by their physician. There are some playthings that are very dangerous, and children should be taught not to play with them. They are popguns, air-guns, bows and arrows, bean shooters, "nigger" shooters, and others in this class. Sharp-pointed scissors, knives, and other pointed instruments are dangerous to the eyes.
10. Lye, ammonia, strong washing powders, and other articles in this class should not be kept in homes where there are children.

Read "The Responsibility of a Teacher," page 524.

References

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Haviland, *Good Neighbors*, pp. 58–63. J. B. Lippincott Company, East Washington Square, Philadelphia, Pa.

Winslow and Williamson, *The Laws of Health*, pp. 118–120, 74–75. Charles E. Merrill Company, 440 Fourth Avenue, New York.

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National Committee for the Prevention of Blindness, 130 East Twenty-second Street, New York.

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FEBRUARY

FRESH AIR

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Have each pupil take his weight record home to his parents. Discuss the reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Health chore folders

Beginning with this month, the health chore folders should replace the morning inspection. Give each pupil a chore folder. Have the pupils draw a circle around the name of the chores to be checked daily. It is not necessary to include all the chores at first. Have the folders kept in school and checked each morning. In connection with this checking, have short discussions and reports on the special health chores that are being emphasized. If the pupils wish to take their chore folders home, permit this to be done over the week-end.

Have the pupils bring pictures on fresh air cut from magazines. These will be used later.

LESSON IV

Read the story "How the Holly Berry Almost Lost Its Red Cheeks," which you will find on page 221.

How the Holly Berry Almost Lost Its Red Cheeks

Once upon a time a bright red holly berry tipped the end of a branch in the Southland. The breezes, roguish and loving the little red berry, touched her cheeks with crimson, and the jolly sunbeams made her laugh.

But one day the holly berry refused to play with the winds; she paid no attention to the glances of the sunbeams; she crept under the edge of a leaf and sulked. Now that, you know, is very amazing for a holly berry, and the sunbeams, exceedingly surprised and with their feelings the least bit hurt, tried all their most comical tricks to make her laugh. They poked their fingers under the edge of the leaf and shone their hardest on it, thinking that they could make her so hot that she would have to come out. And though she did get very warm and began to shrivel a little, she would not play, but crept farther into her corner.

For two, three, four days, she sulked. On the fourth day, one of the sunbeams, whose name was Early Morn, said to the rest, "Beams, we must do something. Holly Berry is getting pale."

"Pale? Is she really? What'll we do?" They all talked at once and tumbled over each other to peek under the edge of the leaf and see what Holly Berry looked like.

"Ask the Snowbird, he knows," answered Noon Ray, the wisest sunbeam.

"But who is the Snowbird? Where shall we find him?" asked the rest.

"Why—the Snowbird? Don't you know where the Snowbird lives?" answered Noon Ray, who was inclined to be a little bit uppish. "The Snowbird lives—there he is now—on top of that tallest pine tree away over there."

Sure enough, far off on the very top branch of a tall pine tree could be seen a tiny speck. The sunbeams, without

any more discussion, started after him. They darted over the grass, slid through the leaves, and finally reached the pine where the Snowbird perched on the top branch. A snowbird in his travels sees many happenings and knows many secrets.

"Snowbird," the sunbeams cried, as soon as they were within speaking distance, "can you tell us what is the matter with Holly Berry? She stays under one corner of her leaf and won't play with us or with the winds. What shall we do? She is beginning to look quite ill."

"Holly Berry, Holly Berry?" answered the Snowbird, sitting down on the branch and rubbing his left ear. "What have I heard about a holly berry? Where does she live?" And he looked very puzzled indeed.

"She lives in a hollow next to that red barn over there," Early Morn pointed, breathlessly. "Three days ago she suddenly left us when we were playing and ran under a corner of her leaf. She won't look at us and won't come out to play. We are dreadfully worried. She is getting quite pale. What should we do?" Early Morn could say no more, as he had no more breath.

"Yes, we must do something," the Snowbird answered, scratching his head, "but I can't remember what to do."

After a moment, he brightened considerably. "Of course, of course," he said, "that was it. East Wind told me about her. I know all about it. We'll go see her. She mustn't lose her red cheeks, you know, because then she wouldn't be a holly berry. I don't know—of course, she might be something like a snowberry—white, you know, but I doubt if she would be anything."

"Oh-h-h!" moaned all the sunbeams. "Let's hurry."

Over the fields, over trees, over houses that lay like little white blocks in the fields, over a river that sparkled and caught arms with the sunbeams and danced along with them, the

Snowbird flew. And the sunbeams, who could not travel as slowly as the Snowbird, but knew that it would not be polite to leave him, got all mixed up with each other trying to keep pace with him. Early Morn, the straightest and youngest of them all, was always in the lead.

Holly Berry saw them coming. When they left her to go to the Snowbird, she had peeked from under the leaf to see if they were coming back, and when they did not, she was a little bit surprised and quite a bit hurt. Now when she saw them coming, she clapped her hands and ran back into the corner of her leaf. She was delighted to see them, but, of course, she would not let them know it.

The Snowbird perched on a branch near her and began to sing. And what a song! It scolded and coaxed and laughed until Holly Berry raised her head just a bit to listen and then very slowly came toward the center of the leaf.

"Holly Berry," he sang, "long ago the East Wind told me that there might come a day when the winds could no longer tip your cheeks with red and when the sunbeams could not make you laugh. I did not believe him, but now I see he was right.

"When you were made, the fairies put you on a green bush and called the winds and sun to make you beautiful. The East Wind, the North Wind, the South Wind, and the West Wind brought their pots of crimson paint that they carry to paint the cheeks of boys and girls. This day they used the paint to make you lovely. And not only did they paint your cheeks until they were a beautiful red, but they brought you other gifts as well. South Wind brought you gentleness, West Wind gave you joy, North Wind gave you strength, and East Wind, happiness.

"West Wind told you, 'O Holly Berry, as long as you live with the winds and sun, you will be beautiful. But—if

there ever comes a day when you refuse to play with them, no longer will your cheeks be red, and the wind-gifts of gentleness, joy, strength, and happiness will leave you.' East Wind said that that day might come, but the rest of the winds just thought he was being disagreeable."

As the Snowbird stopped, there was a great burst of sunshine, and there, on her holly branch, shining in the sun as if she had never done otherwise, was Holly Berry. She looked a little ashamed and a little pale, but otherwise she was quite herself. She was not a really naughty holly berry and she had not understood. I have known a few little boys and girls who were just like her and who would not play in the sun and the wind, and I could never understand why they would not.

This, dear children, is the story of how the winds and the sun and the wise Snowbird saved the Holly Berry from losing her red cheeks.—ELIZABETH JARRAD. Courtesy of the Michigan Department of Health.

Discuss the story, emphasizing the value of fresh air and exercise.

LESSON V

Value of fresh air

To the teacher:

Plenty of fresh air, indoors and out, is essential to the health and comfort of children. The simplest way to get fresh air indoors is to open the windows. To ventilate a room properly, the windows should be opened at the top and at the bottom. In winter, the outside air is so cold that it often makes a draft which is too cold for persons sitting near the window. If your schoolroom is not already provided with facilities which will prevent draughts, a board about eight or ten inches high may be placed on the lower sill or a dark cloth may be used. The temperature of the school-

room should be 68°. Children who are kept in overheated rooms are likely to catch cold frequently and develop other illnesses. There should be a thermometer in every schoolroom. You should appoint a monitor to watch it. When it rises to 70 he should report to you so that you may give immediate attention to the ventilation.

Develop a lesson emphasizing the value of fresh air in the schoolroom; discuss also the reasons for fresh air in the sleeping rooms.

If you do not have a department of physical education in your schools, refer to page 582 for directions for exercises.

LESSON VI

Have the pupils play an indoor game with the windows open. At the close of the game, call attention to the refreshed feeling.

LESSON VII

Read the following story:

THE KING AND HIS MAGIC CLUBS

A king who was feeble and ill because of ease and idleness called upon his doctor for medicine.

The doctor was wiser than the king and knew it was not medicine but healthful exercise that the king needed. The king would not walk or work, however, like the strong men about him. The doctor then prepared two heavy clubs of strange wood for the king's use, and led him to think that the handles of these clubs contained the medicine for his cure. To get the benefit of the medicine in the clubs, the king must grasp them by the handles, sing with them, and play with them until his hands became moist from exercise,

at which time the medicine would pass into his hands and make his body strong. The king was easily deceived, and each day he might be seen in the open air at certain hours working with his magic clubs.

His muscles grew strong, his blood became pure, and his appetite for good food increased. He praised the medicine of his clubs and the wisdom of his good doctor.

The king never learned from his faithful servants that the clubs were nothing but wood and that the secret of the wonderful cure was found in his own healthful exercise.—By permission of the Ohio State Course of Study.

Discuss the health lesson taught by this story.

FIG. 28. A SECTION OF A HEALTH PAGEANT

Permit the pupils to make posters on fresh air and exercise, using the pictures which have been collected. Place them in the health corner.

LESSON VIII

A health pageant

A health pageant is very attractive, and the pupils find much pleasure in preparing for it. Permit each pupil to choose an athletic sport or some characterization which he wishes to represent. Each pupil should work out his own costume; he should also compose an original rime or jingle about the sport which he has chosen. Suitable music should be arranged for by the school orchestra or any other available source. Each character appears on the stage, gives a short performance, repeats

FIG. 29. ANOTHER SECTION OF THE SAME HEALTH PAGEANT

his jingle, and retires to a side line. When all have appeared, they give a simple drill as a finale. (See Figures 28 and 29 for suggestions for a health pageant.)

References

Allen, *Civics and Health*, chapter v. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

O'Shea and Kellogg, *Health Habits*, chapters x and xi. Macmillan Company, 60 Fifth Avenue, New York.

Pamphlet: United States Public Health Service, "Exercise and Health," by F. C. Smith. (*Supplement No. 24.*) Washington, D. C.

MARCH

POSTURE; CHEERFULNESS

LESSONS I AND II

Weigh and measure the pupils. Place the record on the classroom weight chart. Have each pupil take a record of his weight home to his parents. Discuss the reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Teaching correct posture

To the teacher:

It is natural for a child up to the age of eight or nine years to assume a correct posture, providing he is a well-nourished, sturdy child. Poor postures which are manifested by sharp shoulder blades, flat chests, and prominent abdomens are largely the result of poor health habits such as the eating of improper food, irregular hours of rest, and not enough fresh air; these postures may be also attributed to the presence of physical defects, such as diseased tonsils, adenoids, defective vision, or any of the ailments of childhood which tend to lower the general physical resistance. In considering the pupils in this grade, you should recognize that carelessness also enters in as a cause of faulty posture. While the conditions mentioned above are to be reckoned with, you will notice that the pupils are growing rapidly and that many will be inclined to careless postures while standing or sitting.

Your efforts should be bent toward bringing the pupils into correct posture through encouraging them to live up to a

high standard of health, and through daily attention to habits of standing and sitting in correct position. A child with poor posture should not be directed to wear shoulder braces by any one except a physician. The old direction "Throw back your shoulders" has undoubtedly been responsible for much of the poor posture. This direction gives the child a false sense of correct posture; besides, he will not maintain a posture with "shoulders back," as it is a strained, tiresome position. (Refer to Figures 64 and 65, pages 550 and 551.)

Read the following story:

Old Scowly Spine Pack

Old Scowly Spine Pack looked at the boys and girls who lived in a beautiful state in the Mississippi Valley.

He chuckled to himself and said, "Good, good! I'll get every one of them. I'll get every one of them!"

"Whom will you get? And how will you get them?" asked Merry Brown Robin.

"The boys and girls, the boys and girls," said Old Scowly Spine Pack. "They sit bent over their books, huddled in their chairs, or slid away down at their desks. When they do this, I make the little cushions between the bones of the back all packed so hard that they will not be straightened out again."

"Oh!" said Merry Brown Robin. "That will make the boys and girls weak and hollow-chested. Poor children! They will not be happy at all."

And Merry Brown Robin *did* like to see everybody happy.

"Happy?" said Old Scowly Spine Pack. "What's that? I like to see them all crooked, cross, and crabbedy."

"Oh!" said Merry Brown Robin, in a sorry little voice. "Nobody likes to be near them nor to play with them when they look all cross and crabbedy."

But Old Scowly Spine Pack only scowled the harder as he walked away, crooked, cross, and crabbedy himself.

Merry Brown Robin flew to the west-waving willow tree, perched among the branches on the sunny south side, and thought and thought.

"What can I do? What can I do? Whom shall I tell? Whom shall I tell?" he chirped. "We do want them to look straight and tall and brave. Maybe if they look straight and tall and brave they will grow to be that way."

But he could think of no way to help them, so he sang his evening song, tucked his head under his wing, and went to sleep.

The next morning at the very first dawn of light he awakened, sang his merry morning song, took his bath, ate his breakfast, and started to think again.

"How can I keep Old Scowly Spine Pack from getting the boys and girls? How can I?"

The sun rose higher and higher; he thought harder and harder, but still he found no way to help.

He saw some boys and girls going to a big building with many, many windows. He flew to a tree near one of the windows that was open and looked in at the boys and girls.

Old Scowly Spine Pack was just outside looking very, very cross, indeed.

Merry Brown Robin saw a sweet, pretty lady talking to the boys and girls. They were listening eagerly to what she was saying.

He saw her take a silk flag, hold it up before the children, and say: "This is the flag we love so well. This is the flag of our own beautiful country. Its colors say, 'Be strong, be brave, be faithful.' But no one can be strong who sits huddled over in school or at home. No one can be brave whose head is not erect, who does not try to sit straight and stand straight.

No one can be faithful who does not try to grow strong and be brave.

"This is the message the flag brings to you. Because you love it, we know you want to do what it wants you to do.

"This is not always easy, but we know you will try. It means every day, and every day to sit erect, to stand straight, at home, at school, everywhere.

"It means washing your hands before placing food in the mouth or before preparing it for others; bathing often; brushing the teeth; eating wholesome food; breathing fresh air; getting sufficient sleep, and being helpful to others. All this means hard work, but it makes you good looking, strong, healthy, and happy.

"To do all this, to be all this, shows better our love for our flag and for our country than anything else we can do."

How Old Scowly Spine Pack did scowl! He knew this sweet-faced lady would teach the boys and girls the very things that would keep him away forever and a day.

But Merry Brown Robin sang and sang. He sang so merrily that he tumbled head first off the branch of the tree and had to spread his wings very quickly indeed to keep from falling right into the schoolroom.

"Now I know who can help. Now I know who can help," he sang.

"The nurses and the teachers! The nurses and the teachers! They can drive away Old Scowly Spine Pack any day because they are teaching the boys and girls to form habits that will make them well and strong. But the boys and girls themselves must help! They must try every day to keep him away!"

If Merry Brown Robin looked in your schoolroom window would he find somebody there who is keeping Old Scowly Spine Pack away?—From *Health Training in Schools*, by THERESA DANSDILL.

Have the pupils discuss the seven health lessons which are presented in the story. Place special emphasis upon the health lesson: "I should try to stand and sit tall and to *lie long*. I should wear shoes that are larger than my feet."

LESSON IV

Standing and sitting posture

Study the chart on standing postures, Figure 63, page 549.

Demonstrate the correct standing posture:

Feet parallel
Weight evenly distributed on heels and balls of feet
Abdomen in
Head up
Chin in

Demonstrate correct sitting posture:

Hips and shoulder blades against back of seat
Both feet on the floor
Abdomen in
Head up
Chin in

LESSON V

If possible, obtain a long mirror. As the pupils march in, place it where each one will get the full effect of his own posture. The mirror should be placed before the pupils often as a reminder of correct posture. It should be kept away except when used for this purpose.

Posture in bed

A growing child should lie straight in bed, on his face, on his side, or on his back. (This is essential, as a child should be in bed nearly one-half of his time if he gets the ten hours of rest which his body requires. Why emphasize a straight posture during his waking hours and pay no attention to his position during his hours of rest?) The bed should be straight and firm. The pillow, if used at all, should be thin and soft. The covers should be light-weight.

LESSON VI

Shoes

Careful attention should be given to fitting the shoes of growing children. The feet grow very fast at this age, and the shoes should be larger than the feet when bought.

The following points should be emphasized:

1. Shoes should be longer than the feet.
2. Shoes should be wider than the feet.
3. Shoes should have low, broad heels.
4. Shoes should have flexible shanks.
5. A shoe that is too small is likely to cause corns, bunions, weak foot arches, and other pedal defects.

Select a pupil who has properly fitted shoes. Discuss the good points of the shoes.

Show the pupils a properly shaped shoe and explain its effects.

Have the pupils cut from magazines pictures representing good posture.

LESSON VII

Make posters on "Good Posture," using the pictures brought by the children. Place the best ones in the health corner.

LESSON VIII

Cheerfulness

Develop the health lesson: "I should try to be cheerful, clean-minded, and helpful to others." Discuss how this should be carried out: (*a*) in school; (*b*) on the playground; (*c*) at home.

References

O'Shea and Kellogg, *Health Habits*, chapters iii, iv, and v. Macmillan Company, 60 Fifth Avenue, New York.

Terman, *Hygiene of the School Child*, chapter vii, page 72. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Winslow, *Healthy Living*, Vol. II, chapter iii. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Pamphlets published by the American Posture League, 1 Madison Avenue, New York.

APRIL

REST

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Have each pupil take a record of his weight home. Discuss reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Hours of sleep

To the teacher:

The habit of an early bed hour is a very hard one to enforce with children of this age. Their outdoor games are fascinating and full of rivalry; to give these games up at an early evening hour when the other children are allowed to play is, to them, a real punishment. We suggested a plan to the third grade which we know has worked out reasonably well, so we are carrying it on to this grade. Make the suggestion to the mothers whom you know to be concerned, that they try to arouse community interest in the rest problem. Make an effort to get all the mothers in the block or immediate community who have children of the play age to enforce the same bedtime hour, which should be nine o'clock in order to assure ten hours of rest. Children definitely underweight should be in bed by eight o'clock. The encouragement you offer pupils in the school is greatly appreciated by interested parents.

Survey to find the number who observe an eight o'clock bed hour. If, in this group, there are many pupils up

to normal weight, connect this with their good habits of rest.

Discuss requirements of a good, healthy sleep:

1. Early bed hour
2. Cleanliness
3. One's own bed
4. Plenty of fresh air

LESSON IV

Ways of sleeping

Discuss:

1. How the Chinese children sleep—sleep on low reed couches with wooden pillows.
2. How the Mexican children sleep—sleep on couches, in the open air mostly.
3. How the Eskimo children sleep—sleep either on the floor or on snow benches, wrapped in furs.
4. How the Japanese children sleep—have block of wood under neck; sleep on floor on soft quilts.
5. How the children of the tropics sleep—people sleep in huts. No ventilation whatever—necks on blocks of wood to protect headdress.
6. How the Arabian children sleep—sleep on roof of house; lie flat (noted for good posture).
7. How American children sleep.

LESSON V

Survey to find the number who sleep with windows open. Have several pupils tell how they ventilate

their sleeping rooms. Emphasize the importance of fresh air in a sleeping room and of being in bed ten hours.

Have the pupils bring pictures for a sleep poster.

FIG. 30. POSTER ON REST

LESSON VI

Make posters on sleep. Place them in the health corner.

LESSONS VII AND VIII

Have pupils write essays on "Why We Should Have Ten Hours' Rest."

On the following page is given an essay written by a pupil which is a good example of what may be expected of children in this grade.

Sleep

To keep healthy I must have plenty of sleep. I cannot do my best work unless I get ten hours of sleep. I should go to bed at nine and get up at seven. Babies need more sleep than older children, so they must have their naps during the day.

References

O'Shea and Kellogg, *Making the Most of Life*, chapter xii, page 202. Macmillan Company, 60 Fifth Avenue, New York.

Terman, *Hygiene of the School Child*, chapter xx, page 362. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Winslow and Williamson, *The Laws of Health*, pages 103–105. Charles E. Merrill Company, 440 Fourth Avenue, New York.

MAY

SUGGESTIONS FOR VACATION

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Have each pupil take his record home. Discuss reasons for individual losses and gains, and the important health chores which should be observed during the vacation. Emphasize the value of food and rest.

LESSONS III TO VIII (*Inclusive*)

Have each pupil make a health book, "My Trip to Healthland," to take home to his parents. This book should contain nine or ten pages. It can be made entirely of pictures cut from magazines. You may have to help collect some magazines so that plenty of pictures will be available. If it is possible to get kodak pictures, the children get a great deal of pleasure out of putting their own pictures on the covers of the books. Following is a suggested arrangement for a nine-page book:

Cover page
Page 1: Train or Automobile
Page 2: Packing:

Comb	Towel	Bathrobe
Brush	Wash cloth	Slippers
Clothes brush	Soap	
Toothbrush	Nail file	

STATIONS

Page 3: Clear Water Lake:
Washing face, hands, ears, and neck
Bath
Brushing teeth
Drinking water
Swimming

Page 4: Foodville:
Vegetables, fruits, cereals, milk, and other foods

Page 5: Fresh Air Mountain:
Ice skating, roller skating, ball games, tennis, bicycle, and others

Page 6: Rest Valley:
Sleep; fresh air

Page 7: Happy Hollow:
Helpful, cheerful children

Page 8: What they eat:
Breakfast; lunch; dinner

Page 9: Return Home:
A home of happy, healthy children

When the books have been completed, have each pupil tell the story of his trip. He should mention the benefits of a visit to Foodville, Rest Valley, and the other stations.

GRADE V

FOREWORD

To the teacher: Our aim throughout the first four grades has been to establish a daily health standard which requires habits of personal cleanliness, of proper food, of fresh air and exercise, of correct posture, of long hours of rest, and of cheerfulness. We maintain the same daily health standard through the fifth grade, but in addition we present some of the physiological reasons for the development of these habits. Because of this it becomes necessary to provide the pupils with hygiene textbooks which will furnish subject matter as a basis for our outlines.

Our chief desire is to promote habits of health which should automatically become a part of the daily life of the pupil. We have found that the best results may be obtained through the practice of a daily check on these habits. We believe that the health chore folders put out by the National Tuberculosis Association are the best available material for the daily checking system. The use of these folders in developing the Modern Health Crusade offers many interesting ideas and awards. For illustration, see Figure 59 on page 534. Material and information on its organization may be obtained at a minimum cost from the National Tuberculosis Association, 370 Seventh Avenue, New York. These chore folders may be used even though you do not develop

the crusade. If you choose, you may have each pupil make his own folder.

The progress in height and weight made by pupils of this age is a very important health guide. We have asked you to weigh your pupils once each month and to take their height twice each year. Probably October and March are the most convenient months in which to do the measuring. The time given you to weigh the pupils should be ample, as the pupils in this grade are able to do much toward helping themselves. They should be directed to remove unusually heavy coats or sweaters unless these are being worn to replace necessary clothing. You need not direct the pupils to remove their shoes. You may use your judgment in allowing for the extra weight. Let the slogan of weigh-day be: "The growing child should gain in weight each month; he should not lose or remain the same." Doubtless there will be some pupils who will not make the desired gain. The article on "Malnutrition," Supplement, page 492, presents many interesting facts which should help you to determine the reasons for individual underweights and will also aid you in giving these pupils valuable suggestions.

A classroom weight chart should be kept before the pupils. Keeping this chart before the pupils stimulates their desire to do the things that make them grow. Weight charts may be obtained at a minimum cost from the American Child Health Association, 370 Seventh Avenue, New York; the Department of Interior, Bureau of Education, Washington, D. C.; or a local health agency may supply you with them. If you care to,

you may make your own weight chart. (See illustration, Figure 52, page 489.) The pupils should be encouraged to feel that the monthly weigh-day is the monthly health-test day. Each pupil should feel personally responsible for passing the test. His ability to do so signifies obedience to the laws of health which govern his growth.

Hygiene differs from most other school subjects in that we are encouraging in school those habits that must largely be enforced in the home. With this in mind we are presenting the same subjects during the same months throughout the grades so far as it seems practicable to do so. For example, during the month of September through all the grades we emphasize points in personal cleanliness. In the lower grades, we try to encourage the children to keep clean. We present interesting stories, songs, and rimes on cleanliness and require a morning inspection. In the upper grades, we teach cleanliness in its relation to health. Where there are several children in school from one home, the topic of conversation on points of cleanliness should develop a common interest among the children in performing their duties in keeping clean.

Let us emphasize the use of the health chore folders through the fifth grade as the most valuable means of promoting and maintaining the health interest. Subject matter has been prepared for two class periods each week.

SEPTEMBER

CLEANLINESS

Suggestions that promote interest in health

Invite two children from the third grade to give a demonstration on "How We Get Ready for School."

LESSON I

Health chore folders:

A paragraph on the use of the health chore folders has been included in the Foreword to this grade. Arrange now to make or otherwise obtain the health chore folders. These should be given to the pupils the first of October.

Read the following story:

The Brown Family

The Brown children, who live next door to us, love, best of all, the camping trip they take each August. But this year Father Brown told them it couldn't be done. They all had heard, as you and I have heard, of how much everything costs these days. But they hadn't ever thought about anything interfering with their trip. *They always had gone! Not take the trip!* What a disappointment! Father Brown saw the tears they so bravely tried to hold back. It made him very unhappy to think he couldn't give them this wonderful vacation as he had done every year. He thought about it a long time after he should have been asleep.

When finally he did go to sleep he had a very strange dream. He dreamt that a row of queer little men sat on the foot of his bed and each one held what Father Brown at once saw was a

bill. Father Brown was greatly distressed. He didn't know where in the world he could get the money with which to pay these little men so they would go away and let him sleep.

The little men must have been able to read his mind (fairy powers, you know), because the first little fellow gave a squeaky laugh and said, "These bills are all bills that you have *paid*."

So saying, he hopped nimbly down from the rail and presented Father Brown with the bill, and in the twinkling of an eye had vanished. Then down hopped the next little man, and the next, and the next, until not one remained and only the bills were left in Father Brown's hand. Just as he had finished looking at the last one a strong breeze blew through the room and away, out the window, sailed the bills.

"But what was on the bills that the little men gave you?" cried the children in chorus at the breakfast next morning.

"Oh, my goodness!" laughed Father Brown. "First there was the bill I paid when you, every one, had the measles last spring; then there was the one for castor oil Edith had to take after she ate too much birthday candy. There were the doctor's visits when we all had the grippe last February and bills for the nurses who took care of little Jim when he had pneumonia. Then, too, the bill for the physical training teacher who had to give Phil special exercises because he had become so round shouldered, and, the very biggest of all, the Dentist bill. At the foot of the bill was printed, 'A clean tooth never decays.' If only some one had told me about that when I was a little boy, instead of waiting until I am old enough to pay bills, what a lot of pain it would have saved me!

"But wasn't it a funny dream?" said Father Brown when the children stopped laughing.

"I am just thinking," replied Philip. "Do you remember how much money it took to pay these bills?"

"I can't tell exactly, Philip, but several hundred dollars. There were ever so many of them, you know, when one has such a big family."

"That's it! That's it!" interrupted his son. "Such a big family, such a big family, that we can't have a camping trip! It's all because we haven't learned to keep well. Now I know our teacher was right when she wrote on the board:

'Save your health and you save money!'"

—By LaVone Shoaf

Have the pupils discuss the health lesson.

LESSON II

Have the pupils write ten health rules which they will try to observe this school year.

LESSON III

Discuss the health rules written by the pupils. Select the essential ones and write them on the board.

LESSON IV

Care of the skin

Assign a lesson on the care of the skin to be studied from a hygiene textbook. Then develop these points in class:

The skin—*its use:*

1. Protects the body against germs and other outside dangers.
2. Protects the muscles and organs—keeps them moist and free from external injury.
3. Aids in throwing off waste matter.
4. Controls body heat.
5. Carries the nerves with which we touch and feel.

LESSON V

Care of the skin (*continued*)

In connection with the textbook material develop these points:

Bathing:

1. To cleanse skin of dirt and soil.
2. To cleanse skin of waste materials deposited by perspiration.
3. Warm water and soap bath most effective for cleansing and very restful—preferably at bedtime.
4. Cold baths exhilarating; those who take them are likely to be hardy and little subject to colds.
5. Cold baths should be followed by brisk rubbing with a coarse towel and are preferably taken in the morning.

LESSON VI

Care of the skin (*continued*)

General cleanliness:

1. A cleansing bath and clean clothing more than once a week. Why?
2. Wash face, neck, ears, and hands and clean nails *every day*. Why?
3. A shampoo with good soap once each week or ten days. Why?
4. Underwear in summer light weight enough to keep the body cool.
5. Underwear in the winter should be wholly or partially woolen to keep the body warm.

6. Outer clothing for boys and girls in summer and in winter that will launder.
7. Shoes cleaned daily:
   Preserves the leather.
   Presents tidy appearance.

LESSON VII

How germs are spread

Assign a lesson on how germs are spread to be studied from a hygiene textbook. Develop these points:

Cleanliness (*protection of self and others*):

1. Wash hands thoroughly with soap and water before each meal or before handling food. Why?
2. Keep pencils and everything unclean away from your nose and mouth.
3. Discuss ways and means by which pupils in the room may learn to form the habit of keeping everything unclean away from their noses and mouths.
4. Have a clean handkerchief or cloth every day; several each day if you have a cold.
5. Cover up each cough and sneeze. Discuss.
6. Stay out of a group when you have a watery cold and are coughing and sneezing.

LESSON VIII

How germs are spread (*continued*)

Cleanliness (*desks, books, and general appearance of room*):

1. Desks inside and out should be dusted and free from scrap paper and books not in use.

2. Books should be carefully handled with clean hands. (Demonstrate proper handling of books.)
3. A clean floor is each pupil's responsibility.
4. Window shades arranged so as to allow the best light.
5. Book cupboards dusted and in order.
6. Coat halls tidy.

Have the pupils discuss what they consider an ideal schoolroom and playground. Let them plan ways in which they may keep their schoolroom and playground up to standard.

References

O'Shea and Kellogg, *Health Habits*, chapter xvii. Macmillan Company, 60 Fifth Avenue, New York.

Winslow, *Healthy Living*, Vol. II, pages 151–153. Charles E. Merrill Company, 440 Fourth Avenue, New York.

OCTOBER

FOOD (MILK)

Suggestions that promote interest in health

If possible, plan a visit to a dairy or a dairy farm.

LESSONS I AND II

Weigh and measure the pupils. Place the record on the classroom chart. (See illustration, Figure 52, page 489.) Send a record of the pupil's weight home. (In the Foreword to this grade we have included two paragraphs on the process of weighing and measuring.) The article on "Malnutrition," page 492, is very instructive and will aid you in determining reasons for individual losses and gains. For the average weights of boys and girls see the Weight-Height-Age-Tables, pages 487, 488.

LESSON III

Chore folders:

Present the health chore folders. Discuss the chores. Have the pupils draw a circle around the names of the ones to be checked daily. The chore folders should be checked each morning and discussed once each week. If the pupils wish to take the folders home, permit them to do so at the close of the week. Watch the checking closely enough to be certain that it is being properly and accurately done.

LESSON IV

Read to the class the article "All about Milk," page 499. Have a class discussion. Develop five important reasons for drinking milk. Write them on the board.

LESSON V

Care of milk

Assign a lesson on the care of milk from a hygiene textbook. Develop these points:

The barn should be:
- Clean
- Free from manure
- Free from flies

The milker should:
- Wash his hands before milking
- Clean his finger nails
- Wear a clean milking suit

The cow should be:
- Tuberculin-tested
- Brushed before milking
- Udder washed before milking
- Given fresh, clean pure water
- Fed scientifically
- Clean

The milk pail should be:
- Covered to prevent dust from entering the pail
- Scalded and sunned—rinsed before being used

The milk should be:
- Pure
- Pasteurized or certified
- Fresh
- Clean
- Cool

Have the pupils find out what is meant by the terms "tuberculin-tested," "fed scientifically," "pasteurized or certified." Refer to a hygiene text or obtain information from a good dairyman.

LESSON VI AND VII

Read or dramatize this story:

Following the Milk Can

FOREWORD

L. and R. mean the left and right of the characters on the stage when facing the audience.

If possible, the children should carry articles typical of the characters they represent; that is:

Mike the Milker—A covered milking pail
Tom the Tester—A test bottle or glass tubes
Bess the Bottler—An empty milk bottle
Sam the Salesman—A bottle full of milk

We realize that the children's own originality and spontaneity add more to a play than we can suggest in writing; also that conditions in different schools are very varied. Therefore we urge that such minor changes in the play be made as will make it most effective and adaptable to the participants and the local situation.

CHARACTERS

Dairy Farmer.....Boy about ten years of age
Mike the Milker.....Boy about ten years of age
Tom the Tester.....Boy about ten years of age
Bill the Brakeman.....Boy about ten years of age
Pete the Pasteurizer.....Boy about ten years of age
Bess the Bottler.....Girl about ten years of age
Sam the Salesman.....Boy about ten years of age
Health Fairy—A girl who dances, or who is graceful enough to follow music with a few light interpretive steps.

[Dairy Farmer *stands rear center. Enter* Jimmy *R.*]

JIMMY (*as if to himself*): I wonder what is done with the milk when it leaves my uncle's farm. He takes it away from his milkhouse in big, big cans. Yet when you see it on the steps in town, it is in bright glass bottles. I certainly should like to know what happens to it.

[DAIRY FARMER *turns toward* JIMMY *as he speaks.*]

DAIRY FARMER: I heard you say you would like to know just how milk gets to town, and I am going to show you.

JIMMY: Thank you, that is very kind, but who are you?

[DAIRY FARMER *steps to front and center, and recites. As* DAIRY FARMER *steps front,* JIMMY *sits down R.*]

DAIRY FARMER:

I'm the Dairy Farmer:
No busy town for me,
With dust and dirt, and noise, and rush,
And not a bush or tree.

I live in the broad, wide country,
And raise dear Bossy Cow.
I feed her, milk her twice a day;
Mike will tell you how.

[*After recitation, steps to rear R. of stage and stands.*]

[*Enter* MIKE THE MILKER *L. as* DAIRY FARMER *says last line. Walks to front and center and recites.*]

MIKE THE MILKER:

I am Mike the Milker,
My life is happy and free.
I love my home and friends and stock,
And they're all fond of me.

I milk the cows twice daily,
I'm always very neat;

For a careful milker, girls and boys,
Keeps milk clean and sweet.

[*Steps to rear and stands L. of* DAIRY FARMER.]
[*Enter* TOM THE TESTER *R. Walks to front and center and recites.*]

TOM THE TESTER:

I am Tom the Tester,
A scientific man,
Who tests the Dairy Farmer's milk
Directly from the can.

And when I find it's clean and sweet,
So no one can complain,
I say, "Good work, my Farmer Friend,"
And put it on the train.

[*Steps to rear and stands L. of* MIKE THE MILKER.]
[*Enter* BILL THE BRAKEMAN *L. Walks to front and center and recites.*]

BILL THE BRAKEMAN:

I am Bill the Brakeman
On the special morning car
That takes the milk from the country plant
To cities near and far.

And I can tell you, girls and boys,
That milk is very nice;
For on top of each and every can
Is a great big piece of ice.

[*Steps to rear and stands L. of* TOM THE TESTER.]
[*Enter* PETE THE PASTEURIZER *R. Walks to front and center and recites.*]

PETE THE PASTEURIZER:

I am Pete the Pasteurizer,
A responsible position;
For I'm the one that kills the germs
To keep milk in prime condition.

I do not boil it, understand,
  But kill germs with a little heat;
And then I cool it promptly.
  This keeps it clean and sweet.

[*Steps to rear and stands L. of* BILL THE BRAKEMAN.]

[*Enter* BESS THE BOTTLER *L. Walks to front and center and recites.*]

BESS THE BOTTLER:

I am Bess the Bottler,
  I turn the great big throttle
That sends the milk, and a new clean cap,
  To place in every bottle.

I never raise dust near the milk;
  I'm careful not to spill it;
The bottle's here, and so's the milk,
  So all I do is fill it.

[*Steps to rear and stands L. of* PETE THE PASTEURIZER.]

[*Enter* SAM THE SALESMAN *R. Walks to front and center and recites.*]

SAM THE SALESMAN:

I am Sam the Salesman,
  I drive up and down the street;
I ring the doorbells one by one,
  And leave milk pure and sweet.

And when I see a growing child,
  Either poor or wealthy,
"A quart a day," I call to him,
  "Is bound to keep you healthy."

[*Steps to rear and stands L. of* BESS THE BOTTLER.]

FIG. 31. POSTER ON MILK (FREE-HAND CUTTING)

[*Enter* HEALTH FAIRY *L. All but* JIMMY *smile and wave as if glad to see her. If the* HEALTH FAIRY *is a child who dances, a short fancy dance is very effective here. Otherwise she may take a few graceful skipping and running steps, turn several circles, with her arms gracefully waving above her head. A few strains of light music, such as "Melody in F," or Mendelssohn's "Spring Song," are very appropriate music for this.*]

[JIMMY *has meantime been studying her very intently. As she finishes her dance, she bows to him from center. He walks over to her.*]

JIMMY (*rather excitedly*): Oh, how lovely you are! But who are you? [*Turning to line of other children.*] Is she a friend of yours? She seems to be well acquainted with you all.

ALL: Yes, she goes wherever we take milk, for she is the Health Fairy. [*They all bow to her.*]

JIMMY (*to Health Fairy*): And will you be my friend, too? For I certainly like all of the other milk people.

HEALTH FAIRY: Indeed I will be your friend if you drink a quart of milk every day, or eat something made of milk, for wherever boys and girls are friends of milk we are sure to find good health.

[*She and* JIMMY *continue to stand in front and center while all sing.*]

ALL (*to tune of "Tramp, Tramp, Tramp"*):

Drink milk, everybody, drink milk!
'Twill build your body staunch and strong:
Drink it morning, noon, and night,
It will make you feel just right,
So keep right on drinking milk your whole life long.

[*This may be repeated as curtain is dropped; if there is no curtain, all may march off stage while singing song the second time. In this case the* DAIRY FARMER *will walk toward front; others in line following walk across stage toward L. and exit.* JIMMY *and* HEALTH FAIRY *will follow hand in hand at end of line.*]

—Courtesy of the National Dairy Council

LESSON VIII

Have some of the pupils write essays on "Milk as a Food"; have others make posters on milk.

Have the pupils check the chore on drinking milk in the health chore folder.

References

Rosenau, *The Milk Question.* Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Rose, *Feeding the Family.* Macmillan Company, 60 Fifth Avenue, New York.

"Milk and Its Relation to Public Health," *Farmers' Bulletin 56,* Revision of *41.* United States Department of Agriculture, Washington, D. C.

NOVEMBER

FOOD: CLASSIFICATION AND SELECTION

Suggestions that promote interest in health

Make flash cards, using the words "breakfast," "lunch," "dinner," "vegetables," "fruits," "cereals," "milk," and others. When the card "lunch" is flashed, the pupil should name the foods that constitute a good lunch; when "fruit" is flashed, he should name three or four seasonable healthful fruits; when "milk" is flashed, he should be able to give three or four good reasons for its use. These cards may be used in reviewing the various points which the pupils have been taught about food.

LESSONS I AND II

Weigh the pupils. Place the record on the classroom chart. Send a record of the pupil's weight home. Discuss the probable reasons for individual losses and gains.

LESSON III

Classification of foods

To the teacher:

Throughout the first four grades, we have made it a strong point to teach children only the foods that are good for them. We have encouraged the teachers not to classify any foods as "bad foods." As we teach children of this age, we feel that this rule does not need to be so strictly observed. These pupils are old enough to understand the reasons for

some foods being better than others, and it becomes necessary for us to help them recognize this fact.

Read the article on "Food," page 514.

Assign a lesson on food to be studied from a hygiene textbook. Discuss these points in class:

1. The value of vegetables, fruits, and cereals in the diet of the growing child
2. The foods that are necessary to grow strong, straight teeth
3. The body's need of water—the quantity to be taken daily

Write lists of important vegetables, fruits, and cereals on the board.

LESSON IV

Selection of food

Assign a lesson on the selection of food to be studied from a hygiene textbook.

Develop in class the food rule: "A maximum of vegetables, fruits, cereals, and milk; and a minimum of meats, sweets, and pastries."

Discuss the use and abuse of meats, sweets, and pastries in the diet.

LESSONS V AND VI

Menus

Have the pupils plan menus for breakfasts, lunches, and dinners. The basis for their selection should be the food rule:

A maximum of vegetables, fruits, cereals, and milk
A minimum of meats, sweets, and pastries
Some milk every day
No tea or coffee

These menus should be read and corrections should be made where necessary.

Our main effort is expended on increasing the intake of vegetables, fruits, cereals, and milk and decreasing the intake of meats, sweets, and pastries. For suggestions for well-balanced meals, see pages 496–497. If you are not already checking food chores on your health folder, include them now.

LESSONS VII AND VIII

Read or dramatize the following:

The Magic Basket

This little play was written to dramatize the health work of the health clowns so that children may remember emphatic points through action. It has been planned so that it may be staged inexpensively in costumes made by the children themselves out of paper.

Christopher wears overalls.

Rococo has the conventional clown suit, with red crosses to show his allegiance.

Milk, Soap, and Toothbrush are in pasteboard.

Carrot, Egg, Tomato, and Beet are in paper romper costumes, plumply stuffed.

Candy, peppermint striped, of course, has long fingers gloved like stick candy.

Chewing Gum, Coffee (in the pot), Cucumber, and his brother Pickle are in stiff paper. Pickle walks a little bent, head forward.

The Magic Basket is the only scenery, and it is planned to give mystery to the play, to give amusing entrances, and to intrigue the imagination. It is about three feet high, with a huge Red Cross, and resembles the one carried by the health clown. It stands against a small stepladder, or a chair with a stool on it, so that the Basket People may make their entrances as if they were popping out of the basket.

Rococo should be a big boy who is somewhat athletic.

Christopher should be a clever one who can remember all the things he has to say. The other lines are simpler, and can be learned by boys and girls of varying ages.

People in the play are:

CHRISTOPHER, himself.

ROCOCO, the friend of the children.

THE BASKET PEOPLE you know as MILK, CARROT, BEET, TOMATO, SOAP, TOOTHBRUSH, EGG.

THE TEMPTING TROLLS—their names are COFFEE, CANDY, GREEN BANANA, CHEWING GUM, CUCUMBER and his brother PICKLE.

While you are watching the fairy forest and wondering about the Magic Basket which is so big and funny that it might be a wee house, a frail small boy stumbles in, hurrying, half crying. He sits down under a tree, very much disturbed. You can tell that he is running away to be alone and that he is angry. He rolls on his tummy and begins to cry. His name is CHRISTOPHER *and he makes you feel sorry.*

Then, hopping, skipping, with a comical gait like a circus clown, a curious figure trips on the scene. He looks like a circus clown except that he has red crosses on him. In one hand he has a carrot and an egg; in the other, a bottle of milk. He suddenly stops in front of you and juggles these things in the air once or twice while you hold your breath. CHRISTOPHER *half raises to peek at him, but buries his face again as the clown turns and tosses into the basket the carrot, the egg, and the milk bottle, biff! biff! biff! Then he does a few more jolly steps and, just like a magician, he pulls out of the air a toothbrush which he pretends to use, up and down, before he tosses it into the basket.* CHRISTOPHER *peeks. Then* ROCOCO, *the clown, still prancing, plucks a cake of soap out of the air and pretends to give himself a good scrubbing before it too goes, pop! into the basket.* CHRISTOPHER *hides.* ROCOCO *spies him. In exaggerated high-stepping quietness, he goes over to* CHRISTOPHER *and tries to rouse him.*

ROCOCO: Bless my Red Cross buttons! What have we here? Who's come to visit Rococo? Some human child seeking health and happiness and the road to loving service?

CHRISTOPHER: Go 'way! Go 'way! [*He kicks and strikes out, his face hidden.*]

ROCOCO (*mimicking him in a high voice and jumping up and down*): Go 'way! Go 'way! Who tells Rococo, the friend of the children, to go away from his fairy forest in the land of the magic basket?

CHRISTOPHER (*breaks down and sobs*): Boo-hoo!

ROCOCO (*jumping up and mimicking him in a high voice*): Boo-hoo! Boo-hoo! [*He makes believe crying in such a loud horrible tone as he gallops around the stage that* CHRISTOPHER *sits up and begins to laugh.*]

ROCOCO (*begins to laugh, too, on his last gallop around. Then he stoops and asks gently*): Now come! Tell Rococo all about it. [*Starts to stroll away, glancing back over his shoulder.*] All right. Rococo is the friend of the children. If you don't care to do as my other friends do, I must say good-by. Good-by.

CHRISTOPHER: I promise. [ROCOCO *strolls farther away with a funny walk.*] I promise. [CHRISTOPHER *runs after* ROCOCO *and pulls him back.*] Please show me. I promise.

ROCOCO (*jumps around and leads him to a spot where he motions him to stand still*): The basket people will help you if you will make them your friends. I will summon some of them, one at a time. Now! Ready! Watch Rococo. [*He begins to moo like a hungry cow.*]

[*Then watch, because in answer to his call* MILK *rises out of the Magic Basket and jumps to the ground stiffly and bobs to* ROCOCO, *who returns her salutation in kind; then she approaches* CHRISTOPHER. *He is hugging his knees and staring wonderingly at the bottle of milk, which he is almost sure looks just like the one* ROCOCO *tossed into the basket a few minutes before. He is not certain, however, because* MILK *can talk.*]

ROCOCO: Milk, can you help Christopher to find the way to strong manhood?

MILK: I am milk, the perfect food, designed for girl or boy; I'll bring you pep and ruddy cheeks and bodies full of joy. So drink me down three times a day as robust children should, and I in turn will make you glad that I'm the perfect food.

ROCOCO: There, you see! Thank you, my dear. [*He whistles three long hard whistles.*]

[CARROT *pops out of the top of the Magic Basket, followed by* BEET *and* TOMATO, *two fat-looking vegetables.*]

ROCOCO: Carrot, don't you think that the Vegetable Family can help Christopher to grow strong?

CARROT: I must say the carrot sisters are plumb full of iron and salts.

BEET: So am I.

TOMATO: So am I.

CARROT:

We tempt the fickle appetite,
With other foods, we make for might,
You'll find that carrot's a delight.

BEET: So am I.

TOMATO: So am I.

ROCOCO: Let's dance a little dance for him to show that we are just as jolly as the Tempting Trolls.

ALL (*in shocked tones*): Trolls!

[*Nevertheless they dance a folk dance,* CARROT, BEET, *and* TOMATO *daintily and* ROCOCO *in burlesque while he whistles.* MILK *and* CHRISTOPHER *are amused.* ROCOCO *stops them before they are through and whistles a shrill call, just as if he would burst.*]

[SOAP *and* TOOTHBRUSH, *hand in hand, appear.*]

SOAP AND TOOTHBRUSH (*together*): We are the Cleanliness Twins, we two.

SOAP: Scrub, my brother scrub.

BOTH: Vanquishing violent germs we do.

TOOTHBRUSH: Up and down, you rub.

BOTH: Bathe if you wish to be clean and bright.

SOAP: Scrub, my brother, scrub.

BOTH: Brushing makes teeth always glisten white.

TOOTHBRUSH: Up and down, you rub.

[ROCOCO *pretends to brush his teeth up and down, forgets, and goes across.*]

ALL: No! No! [*Remembers to do it correctly.*]

ROCOCO: I know some one else—Egg. [*He begins to crow like a rooster. A very tiny girl garbed as an* EGG *comes to the top of the Magic Basket and prepares to jump.*]

ALL (*all scream*): Don't! Don't! You'll break.

ROCOCO (*lifts her down and leads her to* CHRISTOPHER): Egg, you tell this boy how to be big.

EGG (*A very little girl, you remember, says these large words*):

Medium, soft, or three minutes,
Scrambled or omelette or raw,
An egg with the nourishment in it
Makes boys grown up strong like papa.

CHRISTOPHER (*puts his arms about her*): I like you. I like all of you. The things you tell me to do are so simple that I am ashamed to be a weakling.

[TEMPTING TROLLS *rush on the scene.*]

ALL (*exclaim in alarmed voices*): The Trolls! The Trolls!

TROLLS: Do you like us? (*They tease him, pulling at him.*)

CANDY: Gumdrops, lollipops, chocolates, and licorice, peppermint, taffy, and sweet rich creams!

COFFEE: Black strong coffee! Choose me for your breakfast, I will dull your memory and drug it with my dreams.

GUM: Chew me! Chewing gum! I'm a vulgar fellow.

BANANA: Eat me! Banana! See! I'm hard and yellow.

CUCUMBER: I dare you to try, Mr. Cucumber Cu, I'll give you tummyache—

PICKLE: Pickle! Me, too!

ALL: Christopher, you like us, don't you? We can give you pleasant, delicate taste. [*They pull at him again. The* BASKET PEOPLE *stand around to protect him.*]

CHRISTOPHER: Rococo, help! help! I do like them. But I like your people, too.

ROCOCO: You must choose. The Tempting Trolls bring you delights soon forgotten. They cannot make you an athlete as the Basket People can. Choose.

CHRISTOPHER: I choose you. I do want to be strong and have my friends proud of me. I choose Rococo and his friends from his Magic Basket.

COFFEE: I don't care. I know a stupid boy; he likes coffee.

CANDY: I don't care. I know a silly girl; let's spoil her complexion.

CUCUMBER: I don't care. I know a greedy lad; let's ruin his digestion. [*They run noisily away.*]

MILK: Dear Christopher, since you have chosen to be my lifetime friend, I have a gift for you and you shall have others like it every day in the year.

CARROT: And some of the vegetable family will come to you each day. We must tell Spinach, Sister Beet. [*As she speaks* MILK *steals away.*]

TOOTHBRUSH: Up and down, remember. Never across. This is for you. [*Gives him a toothbrush. The vegetables have disappeared.*]

SOAP: Plenty of water is my motto. Scrub, brother, scrub. [*Gives him a cake of soap.*]

ROCOCO (*does a couple of stunts while* TOOTHBRUSH *and* SOAP *vanish, then he bursts into noisy laughter*): Do you know what to do when you feel blue, instead of crying? Ha! Ha! [*He laughs in such a clownish way that* CHRISTOPHER *joins him.*]

CHRISTOPHER: Ha! Ha! Ha!

[*The Magic Basket walks away, much to your surprise, just to show its magic, and* ROCOCO *disappears in a couple of cartwheels.*]

CHRISTOPHER: Am I dreaming? How stupid of me! I ran away because the boys said I was too weak and puny to go to the games at High Town. I thought a jolly clown

showed me the way to be strong like other boys. But no. It must have been real. How else could I have gotten this milk and this egg and this carrot and these things? I must tell Rococo, the friend of the children, that I will do everything he wants me to. Rococo! [*He calls for the clown.*] Ro-co-co! Ro-co-co! [*He, too, runs off stage, carrying his health gifts, in search of the fairy clown.*]

And that is all of the play.—By courtesy of the American Red Cross, National Headquarters, Washington, D. C.

References

Holt, *Food, Health and Growth.* Macmillan Company, 60 Fifth Avenue, New York.

Rose, *What to Spend for Food.* New York State College of Agriculture, Ithaca, New York.

Pamphlets:

Langworthy and Hunt, "How to Select Foods: II. Cereals," *Farmers' Bulletin 817.* United States Department of Agriculture, Washington, D. C.

"Care of Food in the Home," *Farmers' Bulletin 375.* United States Department of Agriculture, Washington, D. C.

DECEMBER

HABITS

Suggestions that promote interest in health

Have the pupils work out a Health Book to be presented to another grade for a Christmas gift or to be kept in their own schoolroom. This book may be developed alphabetically. Give each pupil a letter. Have him work out a page for the Health Book by making a rime or slogan beginning with his letter and illustrated by the use of a picture cut from a magazine. The pages shown in Figures 32–34 are from a very attractive book, which the pupils enjoyed making. Have them begin now to assemble material for this book, which they will develop later this month.

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Send a record of the pupils' weights home. Discuss with them probable reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Formation of habits

A babe learning to walk finds its task very difficult at first; later, walking becomes a habit. Learning to ride a bicycle requires much attention and effort at

first; later, the process becomes a habit. Permit the members of the class to discuss different acts which at first have to be practiced but later become habits.

FIG. 32. A PAGE FROM A HEALTH BOOK

Discuss the ways in which children should form habits of obedience, cheerfulness, politeness, courage,

and respect. Have the members of the class give demonstrations of the application of these habits. Good mental habits are a rest to the nervous system;

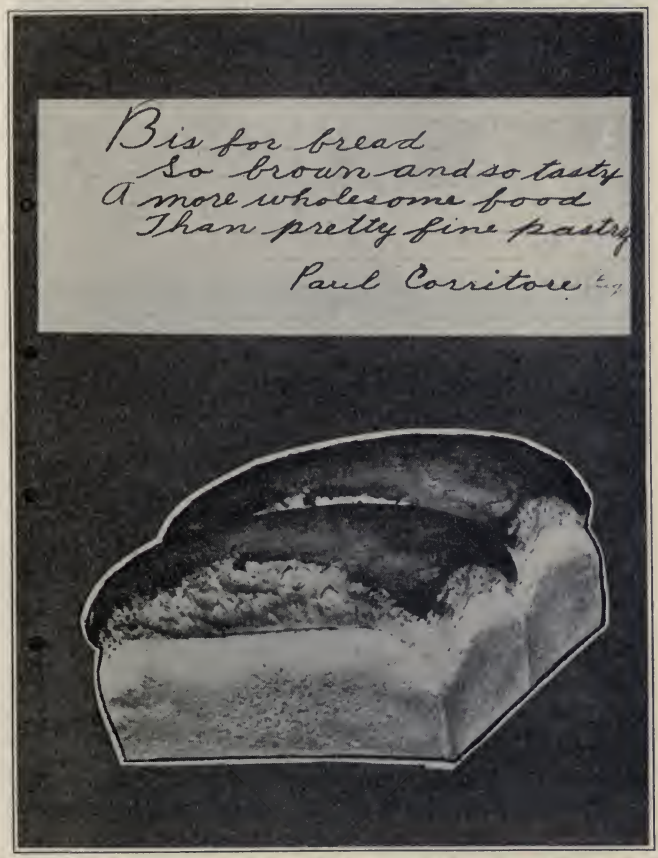


FIG. 33. ANOTHER PAGE FROM THE SAME HEALTH BOOK

they keep the brain healthy. A healthy mind and body can stand hard work. It is better for the body

to work while it works and to rest often. Too long application to any kind of work will cause fatigue.

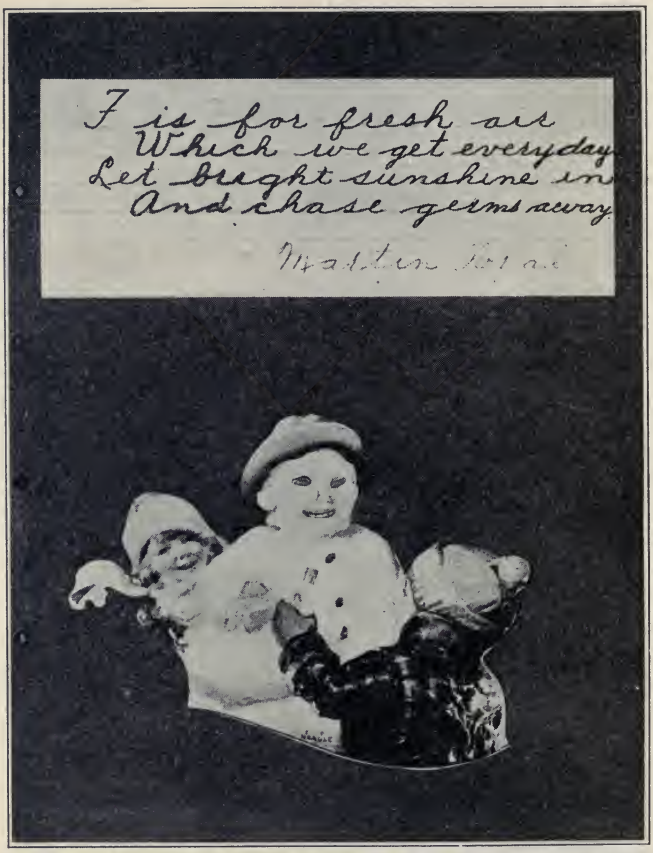


FIG. 34. ANOTHER PAGE FROM THE SAME HEALTH BOOK

A fit of anger or worry is more wearing than hours of hard work. Therefore the habits of cheerfulness and politeness are restful to the body and mind.

LESSON IV

Effects of tea, coffee, and tobacco

Assign a lesson on the effects of tea, coffee, and tobacco to be studied from a hygiene textbook. Develop these points in class:

Effects on growth:

1. Nervous system
2. Will power
3. Ability to do one's best

LESSON V

Read the following story:

THE BOY WHO WALKED AROUND MONT ST. MICHEL

In France there is a high and very steep rock with a church on the top of it, called Mont St. Michel. Once upon a time when bitter wars were going on, this rock was captured by the enemy, and the leader of the invading army made his headquarters in the chapel on its top. Here he ordered brought to him the citizens who had been taken prisoners, and among them one of the principal men of the village, M. de Bretteville, and his little son, Louis. The cruel captain threatened to have de Bretteville thrown from the wall over the rock to punish him for his loyalty to his own people and to his religion, for this was war between people of different religious beliefs. De Bretteville would not yield, and neither he nor his brave son showed any fear.

"I have a good mind to throw you after him," said the captain to the boy.

"You would not make me a coward if you did," said Louis, "and I would gladly leap off the wall myself if I could save my father's life by doing it."

One of the other officers whispered something to the captain, and he turned quickly to the boy. "We will see how brave you really are," he said. "There is a narrow ledge of rock outside of the wall. If you can walk around the rock on that ledge, I will set both you and your father free."

"No, no," cried de Bretteville, "I will not have it! I would rather a hundred times be killed myself."

"It shall be so, whether you like it or not," replied the captain, "or I will have both you and the boy thrown over."

"Will my father be freed if I make the attempt, whether I get around safely or no?" asked Louis.

"He will, you have my word on that."

"Then I am ready," said Louis.

He took off his shoes and stockings and was lifted over the wall so that he stood on the narrow ledge outside, with hundreds of feet of steep jagged cliffs below. The shelf of rock on which he had to walk was in places only a few inches wide, and he could keep from falling only by clinging to bits of projecting stone or roots and branches of bushes growing between the rocks. Step by step he made his way onward, never looking downward into the terrible chasms, but carefully and skillfully selecting the places to put his feet and to hold on with his hands. Even the soldiers watched every step with eager anxiety, hoping that the brave lad would succeed—and perhaps you can imagine the suffering of his father while the minutes slowly passed.

Louis came at last to a place where there seemed no hope of getting farther, for the ledge became narrower and narrower and he could see that ahead it disappeared entirely, leaving nothing but a smooth wall of rock. To turn back was impossible, for he was already on a ledge only a few inches wide.

Slowly and carefully the boy looked downward along the face of the cliff. About three feet below, he saw a jutting point of rock from which another ledge extended on around

the corner of the cliff. He measured with his eye the distance downward and forward, saw that there was a holly bush growing out from the rock just at a good place to give a hand-hold, and then he jumped. He landed safely with his feet on the ledge, holly branches in his hand. The rest of the way was easier, and at last, after what had seemed like a year, but was really only fifteen minutes, Louis was again clasped in his father's arms. They were both saved, saved by the courage and devotion of a boy.

I always remember Louis de Bretteville and the cliffs on Mont St. Michel when I think of habits. It was the habit of strong muscles and well-trained nerves, and above all the habit of coolness and courage and the habit of loving service, that made it possible for him to do this splendid deed.—From Winslow's *Healthy Living*, Book One, by permission. Copyright, 1920, by Charles E. Merrill Company.

Discuss the lesson on good habits and courage brought out in the story.

LESSON VI

Formation of habits (*continued*)

Discuss freely the habits of health which you have formed this school year. Emphasize as daily habits:

Cleanliness
Care of teeth
Use of handkerchief
Everything unclean away from nose and mouth
Posture
Exercise
Cheerfulness
Rest

LESSONS VII AND VIII

Complete the Health Book that you are making for a Christmas present, as suggested at the beginning of the month.

References

O'Shea and Kellogg, *Making the Most of Life*, pages 166–172. Macmillan Company, 60 Fifth Avenue, New York.

Winslow and Williamson, *Laws of Health*, pages 97–98. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Literature on tobacco sent free by Henry Ford, Detroit, Michigan.

JANUARY

MOUTH HYGIENE

Suggestions that promote interest in health

Have the pupils write New Year resolutions on health. Discuss the resolutions and select five that should be observed by the entire group. Write them on the board.

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Send a record of the pupils' weight home. Discuss the reasons for individual losses and gains.

LESSON III

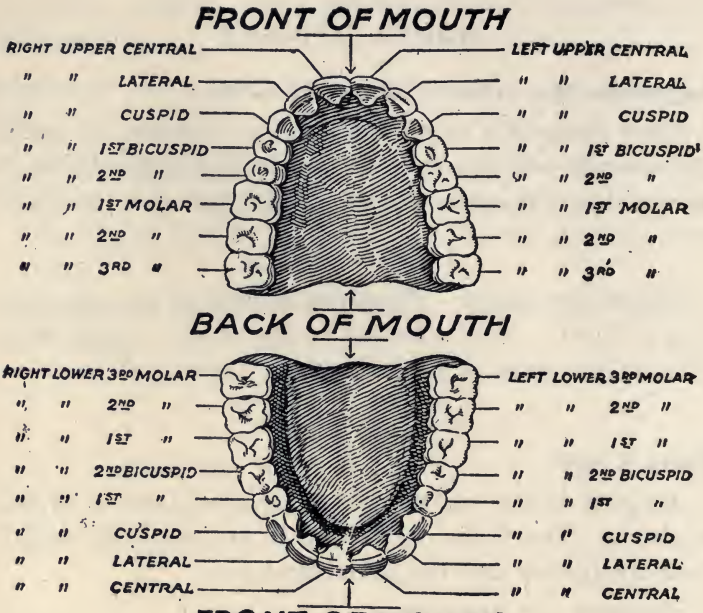
Kinds of teeth

Assign a lesson on teeth to be studied from a hygiene textbook. Teach the names and locations of the teeth—both temporary and the permanent sets.

Temporary or first teeth:

1. Begin to grow out from the gums when we are only a few months old.
2. There are twenty in the first set—ten in the upper jaw and ten in the lower jaw.
3. The names and numbers of these teeth are:

Central incisors	4
Lateral incisors	4
Cuspids	4
First molars	4
Second molars	4



11. Second or Permanent Teeth

SECOND SET OF TEETH.

First molars	6th year
Central incisors	6th or 7th year
Lateral incisors	7th or 8th year
First bicuspid	10th year
Second bicuspid	11th year
Cuspids (eye teeth or stomach teeth or canine teeth)	11th year
Second molars	12th year
Third molars (wisdom teeth)	18th and 30th years

FIG. 35. PERMANENT TEETH—UPPER AND LOWER

The following little poem tells you the order in which they come:

BABY'S TEETH

Baby's lower centrals show
Just seven months from birth, you know.
His upper centrals, laterals, too,
In nine months should be cutting through.
His lower laterals can be seen
When the babe in months is just fourteen.
And when his age is one year and a half,
Four cuspids show if you make him laugh.
And when two years and two months are past,
Four second molars come at last.

—Courtesy of W. C. STILLSON, D. D. S.,
Cleveland, Ohio

Permanent or second set:

1. The first set of teeth begin to loosen and fall out at about the age of six years.
2. The permanent or second set of teeth then begin to appear.
3. There are thirty-two teeth in the permanent set. The names of these teeth are:

Central incisors	4	Second bicuspids	4
Lateral incisors	4	First molars	4
Cuspids	4	Second molars	4
First bicuspids	4	Third molars	4

4. The permanent teeth are guided into their proper places by the baby teeth.

LESSON IV

Present the following points:

First permanent or six-year molars

1. The *first permanent molars* appear at about the age of six years. They are also called *six-year molars.* These are the first teeth of the second set. You will find them on each side of your mouth in both the upper and the lower jaw; begin with your central incisor and count back to the sixth tooth in line.
2. The six-year molars decay more easily than the other teeth. They are often thought to be baby teeth and are allowed to decay.

    a. They hold your other teeth in line.
    b. They do much of the chewing of your food.
    c. They are the largest and most important of your second set.
    d. Your teeth will come in out of line if you lose your six-year molars before the permanent teeth are in their proper places.

Have each pupil locate his six-year molars.

Care of the teeth

1. Straight, clean, shiny teeth are pleasant to look at.
2. They help to keep the whole body in good health. They prepare food for digestion by thoroughly chewing it. The chewing of tough foods is good for the teeth. Why?
3. Avoid biting very hard objects. Do not crack nuts with the teeth.

4. Watch the teeth carefully for decay. A decayed tooth should receive care from the dentist before it is allowed to ache.
5. Visit the dentist *every six months*, not because of decay but to prevent decay.
6. Brush the teeth before breakfast and before bedtime.

LESSON V

Care of the teeth (*continued*)

1. The teeth should be brushed thoroughly before breakfast and before bedtime. It would be much better to brush them after each meal.
2. The brush:
   a. Bristles should be stiff.
   b. Brush not too large.
   c. A new one when the bristles begin to soften or drop out.
3. Care of the brush. It should be:
   a. Hung in the sun if possible.
   b. Always kept in place free from dust.
   c. Thoroughly rinsed after each use.
   d. A little salt sprinkled on the bristles after each time used helps to preserve the brush and makes a pleasant preparation for the next use.

Inspect the mouths of the pupils. Have several with well cared-for teeth show their teeth. Encourage the ones with decay to visit a dentist.

LESSONS VI, VII, AND VIII

Toothbrush demonstration

To the teacher:

The process of brushing the teeth is a very important health lesson to the pupils in this grade. They are old enough to be capable of brushing the teeth properly, and failure to do so is due largely to carelessness or a lack of knowledge. Let us not overlook a health lesson which, if neglected, so generally affects the health and personal appearance. When we stop to consider that from 50 per cent to 75 per cent and in many communities as high as 98 per cent of the school children have defective teeth, we realize somewhat the seriousness of the situation. It seems that the best results in teaching the process of brushing the teeth are obtained when the lesson is presented to a small group of pupils, not more than four or five. This makes it possible personally to supervise each pupil. Take this small group from the schoolroom to a place where you have access to running water, or obtain a pitcher of water, a basin, and individual drinking cups. (See Figure 62, page 548.) If you do not have toothpaste, provide a little salt or soda, which is just as good. The day before the demonstration name the pupils whom you wish to bring brushes; remind them to place the brush in an envelope or to wrap it in a clean paper.

There is a difference in opinion among members of the dental profession as to the best method of brushing the teeth. The process which we are describing, however, seems to be quite generally approved:

Order in which the teeth should be brushed:

1. Brush inner surfaces first.
2. Brush chewing surfaces.
3. Brush outer surfaces:
    a. Back teeth
    b. Side teeth
    c. Front teeth

Method of using the brush:

1. Open the mouth enough to allow an easy motion of the brush.
2. Use a rolling motion of the wrist, not the force of the whole arm.
3. Brush upper teeth down.
4. Brush lower teeth up.
5. Include the gums on the strokes — brush vigorously.
6. Use at least ten strokes to each movement. (By this we mean ten strokes to the back teeth, ten to the side, and ten to the front teeth in both the upper and lower jaws.)
7. Rinse the brush often.
8. When the brushing is finished, rinse the mouth several times, forcing the water back and forth through the teeth.

Call attention to the feeling of cleanliness.

As the following three lessons are allowed for these demonstrations, every child should be given an opportunity to go through the drill.

(Many of the toothpaste companies and the toothbrush concerns as well are very liberal in supplying free samples of toothpaste, and brushes at a minimum cost. Upon request, they often supply you with interesting literature.)

References

Ferguson, *A Child's Book of the Teeth.* World Book Company, Yonkers-on-Hudson, New York.

O'Shea and Kellogg, *Health Habits*, chapter xvi. Macmillan Company, 60 Fifth Avenue, New York.

Winslow, *Healthy Living*, Vol. I, chapter ix. Charles E. Merrill Company, 440 Fourth Avenue, New York.

FEBRUARY

MOUTH HYGIENE (*Continued*); CARE OF THE EYES

Suggestions that promote interest in health

Work toward 100 per cent use of the toothbrush twice daily. When this has been accomplished have the pupils make a pennant: "Acres of teeth—not one Acher." Hang this pennant in the schoolroom.

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Send a record of each child's weight home. Discuss reasons for individual losses and gains. Emphasize the value of food and rest.

LESSONS III, IV, AND V

Toothbrush demonstration

Continue to have the toothbrush demonstrations durng these periods. Make every possible effort to have each pupil in your schoolroom supplied with a good toothbrush.

LESSON VI

Read the article "The Responsibility of a Teacher," page 524.

Care of the eyes

Assign a lesson on the care of the eyes to be studied from a hygiene textbook. In connection with the textbook material, present these points:

1. Wash eyes with clean, warm water daily.
2. Keep soiled handkerchiefs and everything unclean away from the eyes.
3. When reading or writing, sit with the light falling over the left shoulder to avoid shadows. (If one is left-handed, the light should fall over the right shoulder.)
4. *Never* sit directly facing a light. Demonstrate.
5. Hold your book from fourteen to sixteen inches from the face. (Show distance by exact measurement.)
6. Lying down while reading strains the eyes.
7. A light too bright is as injurious as one too dim.
8. It is harmful to read by a flickering light or on a moving train or car.

The schoolroom. Study the lighting arrangements of your schoolroom. If you have a front lighting, either close off the light or turn the seats to face another direction. The light should not be bright enough to cause glare, nor should the shades be drawn to cause gloom. If an artificial light is necessary, it should have an inverted globe so as to break the glare. The light should be evenly distributed.

See that each child knows and maintains his correct position in relation to light; also that he holds his book the correct distance from his eyes.

LESSON VII

Care of the eyes (*continued*)

Some evidences of defective vision:

Holding book too near the eyes
Difficulty in reading work on board
Peculiar head posture
Crossed eyes
"Sore eyes" or lids
Headache (especially afternoon headaches)
Lack of interest in studies
Sensitiveness to light
Poor reading (miscalling words)
Blurred vision

Give careful daily attention to the lighting of your schoolroom and the positions the children maintain while studying. (See Figure 38, page 376.) In the abesnce of a school nurse the teacher should test each child's vision by the use of a lettered eye test. This is a very simple test and also a very good guide. If a child appears to need further attention, he should be directed to see a physician or oculist. (For directions on testing eyes, see page 527.)

LESSON VIII

Read the following story:

STUPID JOE

He was a good little fellow and tried so hard to be as bright as other boys in his class, but, somehow, he couldn't seem to do it. He couldn't see things as quickly as the rest. Try as he would, he could not answer his teacher's questions as

promptly as did his classmates. They called him "Stupid Joe," and his teacher had all but despaired of ever being able to help him.

He grew to hate school and to avoid his companions. He played truant from school and often would he wander off alone and not be heard of for whole days at a time. His father at last became alarmed and could not understand Joe's actions. Time and time again he would scold the boy, but it did no good.

One day the father left his eyeglasses at home and departed hurriedly for a trip out of town. Boylike, the little fellow tried them on. He picked up a newspaper just to see how it looked, then gazed through the window at the big out-of-doors.

That was the beginning of a new life for little Joe. He ran to his mother shouting with joy, just as if he had discovered a real cowboy suit 'n' everything. "Mother!" he exclaimed, "get me a pair of glasses like father's. I can read every word in the paper. The fields, the birds, the flowers, and the sky are more beautiful."

Then it came to the mother-heart like a flash of lightning out of a clear sky, "The only trouble with my dear little boy is defective eyesight!" What pangs of remorse that mother love felt for the many hours of sorrow she had caused her little boy! But it was not too late to make amends.

She knew that her little boy must be taken at once for a thorough eye examination.

When Joe returned to school the next week he had on a becoming pair of spectacles. He could see everything on the blackboard distinctly and read his books without effort. He answered promptly and with confidence every question his teacher asked. And now Joe is one of the leaders in his class.

MORAL: Don't blame your child for being stupid, lazy, or unwilling when it is not his fault. Watch the child's eyes that they may not become defective.—By courtesy of the Eye Sight Conservation Council of America.

References

Allen, *Civics and Health*, chapters vii and viii. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

Berkowitz, *Eyesight of School Children*. United States Bureau of Education, Washington, D. C.

Terman, *The Hygiene of the School Child*, chapter xiv. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Very valuable literature may be obtained from the Eye Sight Conservation Council of America, Times Building, New York City.

MARCH

FRESH AIR; EXERCISE; POSTURE

Suggestions that promote interest in health

Appoint a monitor whose duty it is to blow a soft whistle every hour. This is to remind the pupils to come into good posture, whether they are standing or sitting. At the same time, the monitor takes note of the thermometer to see that the room temperature does not exceed 69 degrees, and if necessary adjusts the window shades.

LESSONS I AND II

This is the month in which we *measure* as well as weigh the pupils. Place their records on the classroom weight chart. Send the record of the pupils' weight home. Discuss with the pupils the probable reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Fresh air and exercise

Assign a lesson on fresh air and exercise to be studied from a hygiene textbook. Develop the following points:

In summer: Running, jumping, bicycle riding, baseball, roller skating, swimming, horseback riding

In winter: Skating, coasting, playing games in snow

Clothing:

Summer—should be light weight and washable.

Winter—should be of light woolen, warm enough to keep the body from chilling. Overshoes or rubbers should be worn in snowy or wet weather to keep the feet dry.

No day is too cold to be out in the fresh air if you have on plenty of the right kind of clothing.

LESSON IV

Ventilation

Assign a lesson on ventilation to be studied from a hygiene textbook. In addition to the textbook material, discuss these points:

Fresh air in the schoolroom:

1. Because there are many children together in the schoolroom, it is necessary to pay much attention to the ventilation of the room. Windows should be opened at the top and at the bottom so the air will have a place to come in and go out.
2. We must not allow drafts of cold air to blow directly on pupils sitting near the windows. A sloping glass or board may be placed in the window to avoid direct drafts. A plain black cloth about eight or ten inches wide may be tacked on the lower sill.
3. The temperature of the schoolroom should be kept at 69°. The thermometer is to be suspended from the ceiling in the center of the room, a little above the children's heads.

Fresh air in sleeping room:

1. In summer: Sleep in the open air if possible. If not, sleep in a well-ventilated room.
2. In winter: Sleep on a porch if possible. If not, make an effort to have your bedroom well ventilated by having windows opened from the top and the bottom. Never sleep in a room with windows closed even though the air in the room be cold. That does not signify that the air is fresh.

LESSON V

If you have a department of physical education in your schools, emphasize the exercises which they recommend. If not, develop a set of daily exercises for the pupils. If possible, conduct these exercises in the open air. Suggestions for such exercises are offered on page 582.

LESSON VI

To the teacher:

In seating the pupils in your room pay close attention to the size of the seat. If a pupil is too tall for the seat, there will be a dropping of his right shoulder as he places his arm to write; his knees and legs will be in a cramped position. If the pupil is too small for the seat, his right shoulder will be raised and his left shoulder will be lowered as he places his arm to write; his feet will either swing or reach the floor only with difficulty. These bad positions are responsible for some of the serious spinal curvatures and other postural defects as well as much bodily fatigue. Assure yourself that "the seat fits the child."

Standing and sitting posture

Assign a lesson on posture to be studied from a hygiene textbook. Study the illustrations on posture, pages 549–551. Have the pupils observe these points:

Standing posture:

Feet parallel
Weight evenly distributed on heels and balls of feet
Abdomen in
Head up
Chin in

Sitting posture:

Hips and shoulder blades against back of seat
Both feet on the floor
Abdomen in
Head up
Chin in

LESSON VII

Posture in bed:

A child's bed should be smooth and firm.

A pillow, if used at all, should be very thin and soft.

A child should lie straight, on his face, on his side, or on his back.

A child should sleep alone if possible.

(We emphasize the importance of this position in bed because children make progress in their growth during their periods of rest. If they are getting the proper rest they are in bed nearly one-half of their time. It seems quite as important to maintain a good position during their rest hours as during their waking hours.)

Have the pupils write short essays on posture. This essay on posture was written by a fifth-grade pupil:

POSTURE

To be healthy I must be straight. When I sit crooked I squeeze my lungs and heart. Also my spine is in such a position that it affects the spinal cord and brain so I cannot do my best work. Boys and girls are in school from 9:00 o'clock until 3:30. They are sitting much of this time; therefore I cannot be too careful of how I sit while studying.

LESSON VIII

Shoes

The following points should be emphasized:

1. Should be longer than the feet.
2. Should be wider than the feet.
3. Should have low, broad heels.
4. Should have flexible shanks.

The best way to determine whether or not a shoe is large enough is to remove the shoe; place the foot on a piece of paper and with full weight on the foot outline it. Place the shoe over the outline of the foot and indicate the outline of shoe. If the shoe line comes outside the line of the foot, the shoe is large enough.

References

O'Shea and Kellogg, *Health Habits*, chapters iii, iv, and v. Macmillan Company, 60 Fifth Avenue, New York.

Winslow, *Healthy Living*, Vol. II, pages 32–35. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Pamphlets published by the American Posture League, 1 Madison Avenue, New York.

APRIL

REST; CHEERFULNESS

Suggestions that promote interest in health

If there are Boy Scouts in your room, have them tell how they have learned to be helpful to others. If time permits, have them give some demonstrations of their work.

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Send a record of the pupils' weight home. Discuss the reasons for individual losses and gains. Emphasize the value of food and rest.

LESSON III

Rest

Assign a lesson on rest to be studied from a hygiene textbook. Discuss different ways of resting and have the pupils give examples:

Change of work
Various hobbies
Physical exercises
Sleep

Survey to find the number who are in bed ten hours with windows open.

Include habits of rest on the health chore folder.

LESSON IV

Cheerfulness

Develop a lesson: "I try to be cheerful, clean-minded, straightforward, and helpful to others." Have the pupils give examples of how children can obey this rule: (*a*) in the schoolroom; (*b*) on the playground; (*c*) at home.

LESSONS V TO VIII (*Inclusive*)

Have the pupils write short essays on "How I Have Improved in My Health Habits." The following essays were written by fifth-grade children:

HYGIENE—5B

Before we studied hygiene, I never had my windows open at night. I did not even care to have my windows open. Now I can't go to bed without having my windows open.

I did not care to brush my teeth, but now I brush them two or three times a day.

Before I did not take a glass of water before breakfast. Ever since I took water it seems that my food tastes better.

Before I took a bath about once in two weeks. Now I take two baths a week.

Before I always said: "What is the use of taking ten deep breaths?" Now I do it when I don't forget. I haven't improved in that very much.

LANGUAGE—5B

WHAT THE SCHOOL NURSES HAVE DONE FOR ME

A conversation between two boys, Tom and Dick.

Tom, walking down the street, meets his friend Dick.

TOM: Hello, Dick! Where you going?

DICK: Ah, to the old dentist to have my tooth pulled. The old nurse sent me.

TOM: Say, you ought to be glad to go. If it wasn't for the school nurses the children would go dirty to school and not clean their teeth or nothing. Gee whiz! You ought to be glad to go.

DICK: Well, you see, I'm afraid and scared it will hurt.

TOM: Gee whiz, you rummy! You want to have horses, teeth, don't cha? Well, I know I wouldn't.

DICK: Well, Tom, I guess you're right. I guess I'll go. Good-by.

So Dick went and when he grew up he had the finest teeth and white. He said, "If it wasn't for the nurses, I don't know what would have become of me."

References

Allen, *Civics and Health*, chapter v. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

O'Shea and Kellogg, *Health Habits*, chapters x, xi, and xii. Macmillan Company, 60 Fifth Avenue, New York.

Terman, *The Hygiene of the School Child*, chapter xx. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

MAY

REVIEW (DRAMATIZATION)

Suggestions that promote interest in health

Give the children new health chore folders and encourage them to check their chores daily during vacation. The chore folders should be returned for your inspection when school opens in the fall.

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Send a record of the pupils' weight home to the parents. Discuss reasons for individual losses and gains, and the important health habits which should be observed during the vacation. Emphasize the value of food and rest.

LESSONS III TO VIII (*Inclusive*)

Read the playlet "David and the Good Health Elves." Discuss it and assign parts. This playlet does not require elaborate preparation. Present the play to any of the grades you may choose or to the entire school.

DAVID AND THE GOOD HEALTH ELVES

A HEALTH FABLE IN ONE SCENE

Cast of Characters

DAVID.
MOTHER—Eighth-grade girl suitable for this part.

THREE ELVES OF FRESH AIR—Dressed in blue Brownie's costume.
THREE SUNSHINE ELVES—Dressed in yellow Brownie's costume.
THREE ELVES OF KEEPING CLEAN—Dressed in white Brownie's costume.
THREE ELVES OF GOOD THINGS TO EAT—Dressed in brown Brownie's costume.
THREE ELVES OF REST—Dressed in gray Brownie's costume.
SUNBEAMS—Ten or twelve little girls, dressed in yellow with tinsel trimmings.
GOOD FAIRY—Dressed in white fluffy dress; crown, wand.

SCENE: *Stage is set to represent a child's bedroom. Enter elves on tiptoe, sneaky motion. Glide around room, stopping every few minutes to listen. Finish with elf dance. For this dance, any goblin or Brownie dance may be used. The music used in the original production in Milwaukee was Hinman's "Jumping Jack." At the close of the dance, the elves hear* DAVID'S *mother calling and they scamper away, hiding under the bed, behind the big chair, behind the screen, etc.* DAVID *and his mother in the adjoining room. Voices can be heard by audience.*

MOTHER: David! David! Come! It's time to go to bed.

[*Enter, followed by* DAVID *in pajamas, carrying coat, hat, shoes, stockings, collar, and tie.*]

DAVID (*crossly*): Oh! I don't want to go to bed.

MOTHER: But it's half-past ten o'clock; time for all little boys to be in bed.

[MOTHER *turns down bed.* DAVID *throws his clothes around the room. After some coaxing, she gets* DAVID *into bed.*]

DAVID: Now tell me a story, Mother.

MOTHER: No, it's too late.

DAVID: Oh, please! Just one!

MOTHER: Not tonight. Some time when you are a good boy and go to bed early, then I'll tell you a story.

DAVID: Well, tomorrow night I'll go to bed early.

[MOTHER *tucks him in; pats his head, and says:*]

MOTHER: Good night, sonny! Pleasant dreams!

DAVID (*very sleepily*): Good night, Mother!

[*While* MOTHER *is slowly making her way out of room, play soft music.* MOTHER *stops and looks back to see if* DAVID *is asleep.* DAVID *goes to sleep. Stage is quiet. Elves peep out of hiding places and pantomime to one another. Finally, one ventures out and goes to bed; looks at* DAVID*; nods head in satisfied way; beckons to other elves, who sneak out. One elf stumbles over chair—which act awakens* DAVID. DAVID *sits up in bed and rubs his eyes.*]

DAVID (*surprised*): Oh!

FIRST ELF OF FRESH AIR (*laughing*): Come on, fellows. David has seen us, so we might as well quit trying to hide.

[*While elf is speaking, all come out from hiding places and group about bed.*]

FIRST SUNSHINE ELF: You awakened too soon, young man. You didn't give me time to hide.

SECOND ELF OF FRESH AIR: Salute!

[*Elves give* DAVID *military salute.*]

DAVID: But who are you?

ALL: We are the Elves of Good Health.

DAVID: What are you doing in my room?

THIRD ELF OF FRESH AIR: We have come to keep you well. If you continue living the way you do now, you will soon be a sick boy. Does that sound good to you?

DAVID: No!

FIRST ELF OF KEEPING CLEAN: Will you do just as we tell you?

DAVID: Yes, yes, you bet!

FIRST ELF OF KEEPING CLEAN: Cross your heart.

DAVID: Cross my heart and I hope to die.

FIRST ELF OF KEEPING CLEAN: All right. Boys, get to work.

[ELVES OF FRESH AIR AND KEEPING CLEAN *straighten room.* ELVES OF GOOD THINGS TO EAT *whisper together. One brown elf goes out of the room laughing. The brown elf returns with a tray, covered with a white cloth.* DAVID *watches in astonishment. The elves fly about the room. Each is busy, except the* ELVES OF REST*, who stand watching the others.* DAVID *turns to them.*]

DAVID: Why are you not doing something, too?

GRAY ELVES' CHORUS: Our turn comes later.

FIRST ELF OF FRESH AIR: Brothers, is our work finished?

ALL: Almost.

SECOND ELF OF GOOD THINGS TO EAT (*brings tray, claps hands three times*): One, two, three! [*Whisks off cloth.*]

DAVID (*enumerating all things on the tray*): A nice glass of milk; two poached eggs; some nice brown toast; jelly [*rubs his stomach*]; and this big yellow orange. Is this all for me?

SECOND ELF OF GOOD THINGS TO EAT: Yes, all for you.

[*The elves stand around the bed watching* DAVID *and solemnly pantomime to one another while* DAVID *eats the lunch. One nods head as if to say: "It is right." The other elves nod back, "I told you so."* DAVID *exhibits great pleasure while eating lunch. Finishes everything but orange. Leans back against pillow in a satisfied way.*]

DAVID: I just can't eat this for a while. (*Holds up orange.*) I shall have to rest first. [THREE ELVES OF GOOD THINGS TO EAT *take away tray.*] Now tell me who you are, how you got in here, and what you are going to do.

SECOND ELF OF KEEPING CLEAN: That's a pretty big question, young man, but we will do our best to answer you.

THIRD SUNSHINE ELF: We are all called the Elves of Good Health, but each of us has a separate name and a particular thing to do with causing a person to be strong and well.

SECOND SUNSHINE ELF: We are always fighting some evil spirits called "Germs," which cause a lot of sickness.

FIRST SUNSHINE ELF: We are going to have a great battle with them, but if you will stick on our side and help us, we'll win out.

DAVID: You bet I'll help you. What shall I do?

FIRST ELF OF KEEPING CLEAN: We'll tell you. You know that it is the duty of a good soldier to obey orders without question or complaint, so just remember that in this fight. Now, I am the Elf of Keeping Clean.

DAVID: Oh, is that why you are dressed in white?

FIRST ELF OF KEEPING CLEAN: Right. You know that white stands for purity, for being so clean that there is not a single dirty spot. Now you must keep clean.

DAVID: But I do keep clean.

SECOND ELF OF KEEPING CLEAN: Didn't you cry this very morning when your mother wanted to wash your ears?

DAVID: Yes, but that hurts so.

SECOND ELF OF KEEPING CLEAN: No matter. A soldier mustn't mind pain. If you are going to fight with us, you must be brave.

DAVID: All right. I can stand that.

THIRD ELF OF KEEPING CLEAN: Didn't you say that it was too much trouble to brush your teeth? And when your mother wasn't looking, didn't you stick your toothbrush away and make believe that you had already brushed your teeth?

DAVID: Y-e-s; but I don't see any use in brushing my teeth!

THIRD ELF OF KEEPING CLEAN: Why, don't you know that on your teeth is one of the camps of the enemy? They wait there until they get a chance to march right down your throat. When you brush your teeth, you get every germ off.

DAVID: Whew! How grand! Just watch me brush my teeth after this. There will not be a single germ left in my mouth if I know it.

[FIRST ELF OF KEEPING CLEAN *dances up and down and claps his hands together.*]

THIRD ELF OF KEEPING CLEAN: Then your face and hands must be clean. Get the dirt out from under your finger nails. That is a splendid camping ground for the germs. Then you must take a bath every day or two. It will be a regular "chase the dirt" fight.

DAVID: Oh, that makes baths lots more interesting! I am going to take one tomorrow morning.

THIRD ELF OF KEEPING CLEAN: Then, after you are clean, your room must be clean, for you know that those foxy germs hide around in your bedclothes and in the dust in the corners under the bed. Now, look at that! [*Points to heap of clothes in corner.*] I don't want to see anything like that the next time I come. Those things should be hung up and not dumped down there. [*Looks under bed.*] And the dust is thick under this bed. Whew, it makes me sick! [DAVID *climbs out of bed and looks also.*]

DAVID: I'll help Mother clean all that up in the morning. Then we'll keep it clean. I'll tell her about how we are going to have a fight against germs.

FIRST ELF OF FRESH AIR: Oh, yes, you'd better leave that window open, too. You are shutting out all the fresh air, which is one of the best fighters on our side. In fact, I am the Elf of Fresh Air. [*Taking off his cap, he makes a deep bow.*]

SECOND ELF OF FRESH AIR: I had the hardest time getting in here tonight. The window was shut tight. Finally, I had to crawl through the tiniest crack. It stretched me so that I have felt thin ever since.

DAVID: Are you dressed in blue because you are the Elf of the Air?

FIRST ELF OF FRESH AIR: Certainly. Blue is the color of the sky.

DAVID: And is that why your hair is rumpled?

FIRST ELF OF FRESH AIR: Yes. Don't you love to go out of doors and feel the breeze blow your hair?

DAVID: Your clothes look as though you had been out. Your cap is on the side of your head, too. And you have such a nice, fresh, out-of-doors smell. Why, you make me think of lying under apple trees, or standing by the lake

watching a boat away off where sky and water meet. Oh, I like you, Mr. Elf!

First Elf of Fresh Air: Yes, but you must keep the window open at night so that we can come into the room. Keep it open a little even in the daytime.

David: But when it is so cold and there is snow on the ground?

First Elf of Fresh Air: Then open it some at the top and some at the bottom. The warm air will go out at the top and the fresh air will come in at the bottom. Have it wide open at night and put on some extra covers. Now, never let me find that window shut again.

David: All right. Now, what do you do? [*Turns to silent elf near by.*]

First Elf of Rest: Oh, my turn comes last. Then I'll show you.

David: All right. How about you? [*Points to* Elf of Good Things to Eat.]

Second Elf of Good Things to Eat: I am the Elf of Good Things to Eat. That is why I brought you a lunch tonight. My orders are that you eat plenty of food like milk and eggs that will make you strong so that you can fight better.

David: Why are you dressed in brown?

Second Elf of Good Things to Eat: That stands for the brown of toast and the brown skin of a baked potato. The golden color of my plume means the yellow of eggs and of the orange. But I am not so yellow as my brother here, the Elf of Sunshine. [*Points to* Elf of Sunshine.]

First Elf of Sunshine: Yes, I am the Sunshine Elf. I have brought my sunbeams with me and they will dance for you. [*She claps her hands three times and calls the Sunbeams.*] Come, Little Sunbeams. David is waiting to see you dance.

[*Enter* SUNBEAMS *and perform a light, graceful dance. Any of the fairy, butterfly, or sunbeam dances will fit very nicely. The music used in the original production was the "Pizzicato" from the "Sylvia Ballet." After sunbeam dance the* SUNBEAMS *come to the side of the stage near the* SUNSHINE ELVES *and remain throughout the performance.*]

FIRST ELF OF SUNSHINE: I am one of the best soldiers on your side, and you have been trying to shut me out along with my brother, the Elf of Fresh Air.

DAVID: Why, I didn't know that you could kill germs!

FIRST SUNSHINE ELF: Didn't know that I could kill germs! Brothers, did you hear that? It's the best joke ever. Why, David, if I shine straight down on some germs, I kill them in a few minutes.

SECOND SUNSHINE ELF: Even when they are hidden away down in the dark corners, I can still reach them and kill them. Germs cannot stand sunlight, and when it strikes them they just curl up and die.

THIRD SUNSHINE ELF: You want to remember this and let plenty of us in.

DAVID: All right. I am going to have the shade pulled clear up to the top of the window and the curtains drawn back. Then plenty of sunshine can come in. We will have great times when we fight together in the Good Health Army.

ALL: You bet we will.

SECOND ELF OF FRESH AIR: And if we fight together, and you do not forget to obey orders, we will win, too.

DAVID: You can count on me to do what you tell me, for I want to be well. Let's see—keep clean, brush my teeth, eat good food so as to make my body strong, have fresh air all the time and plenty of sunshine. I can do that all right. But what about you? [*Turns to the* ELF OF REST.] Who are you and what will you tell me to do?

FIRST ELF OF REST: I am the Elf of Rest, and it is about time for me to get in my work. If you are going to be a good

soldier, you must get up every morning with the fighting spirit. At night, you are so tired. In the morning you are rested. What does it?

DAVID: Sleep.

FIRST ELF OF REST: Correct. You get 100 per cent for that answer. Now, you must have lots of sleep so as to be entirely rested and ready to fight when morning comes.

SECOND ELF OF REST: You should go to bed early and not stay awake as late as your mother and father do. [ELF *shakes finger at* DAVID.] They do not need as much sleep as you do.

FIRST ELF OF REST: Now, if you are all done, I'll put David to sleep.

DAVID: Wait a minute. I want to ask you why you wear a gray suit.

FIRST ELF OF REST: Because that is a quiet, restful color. It makes you drowsy to look at me. My spangles are the dreams that come to you when you are asleep. Now, brothers, tell David good-by, for he is going to sleep. [ELF *helps* DAVID *back to bed; draws up covers, and places his hands over* DAVID'S *eyes.*]

FIRST ELF OF REST: You are going to sleep, David.

FIRST ELF OF KEEPING CLEAN: Good-by, David. Don't forget your toothbrush and the bath in the morning.

FIRST ELF OF FRESH AIR: Good-by, David. Don't forget to keep the windows open.

FIRST ELF OF REST: Good-by, David. My good Fairy is coming to sing you to sleep.

[FAIRY *enters, sings lullaby. During the singing, the* ELVES *and* SUNBEAMS *slowly leave the stage.* DAVID *is asleep.*]

[CURTAIN]

—By MAYNARD DOWNES of the Wisconsin Anti-Tuberculosis Association. Arranged for stage production by EVA

SHOWERS and ANNA COSTELLO. Used by courtesy of the National Tuberculosis Association, 370 Seventh Avenue, New York.

References

Joseph Lee, *Play in Education.* Macmillan Company, 60 Fifth Avenue, New York.

F. C. Smith, "Exercise and Health," *Supplement No. 24.* United States Public Health Service, Washington, D. C.

GRADE VI

FOREWORD

To the teacher: Our standard of health in the sixth grade, as in all other grades, requires habits of cleanliness, of selection of food, of fresh air and exercise, of rest, of correct posture, and of cheerfulness. As this is the last year during which we devote all of our class lessons to personal health habits, we want to reinforce our former work by teaching each habit as it relates to the general health. For example, in presenting the subject of food to the lower-grade children, our teaching has consisted almost entirely in encouraging the children to eat vegetables, fruits, and cereals and to drink milk. The sixth-grade pupils are taught why these foods should be eaten, their classifications, and their relation to growth and to health. Even though we have outlined throughout the lessons the points which we wish especially to emphasize, it is important that the pupils be provided with a textbook in hygiene, the subject matter of which will serve as a basis for our outline.

The pupils in this grade have reached the age at which they may assume much responsibility and become intensely interested in their habits of health. Each pupil should keep a record of his health habits by the use of a health chore folder. (See Figures 60, 61 on pages 546, 547.) These folders may be obtained at a

minimum cost from the National Tuberculosis Association, 370 Seventh Avenue, New York. Used in connection with the development of the Modern Health Crusade they present one of the simplest and most attractive methods of gaining general results in promoting health. The awards offered for meeting certain required standards are delightfully pleasing to the pupils. You may obtain full information on the chore folders and all other literature by writing to the National Tuberculosis Association. If you do not care to use these folders, you may have each pupil make his own chore folder.

Every child of this age should be gaining in height and weight. We have asked you to weigh the pupils once each month and to measure their height twice each year. We have designated October and March as being probably the most convenient months for measuring. You should do the weighing and measuring yourself, as your presence and personal interest will encourage the pupils. You may find it a time-saver to have one of your pupils record each pupil's weight. The pupils should be directed to remove unusually heavy coats or sweaters unless these replace necessary clothing. You need not ask them to remove their shoes. Use your judgment in allowing for extra weight. The article on "Malnutrition," page 492, includes many of the important reasons for malnourished and underweight children. We have asked that each pupil should keep his own weight chart and try to determine reasons for his losses and gains. The details of this plan are given in the lessons. A classroom weight record chart should be kept before the pupils. Such a chart may

be obtained from the American Child Health Association, 370 Seventh Avenue, New York; or from the Department of Interior, Bureau of Education, Washington, D. C.; or there may be a local health agency in your city which will supply you with weight charts. If you care to, you may make the chart. An illustration is given on page 489, Figure 52. The monthly weigh-day should be an occasion to which every child looks forward with keen interest and a knowledge of its importance in relation to health.

We can do much through various methods of teaching to encourage the pupils to observe health rules, but we must finally depend upon the home to enforce these rules. We know that a common interest in the same subject among the children in a family will do much toward carrying our teaching over into the home. Because of this, we have planned the same subjects to be taught during the same months throughout the grades so far as it seems practicable to do so. For example, during the month of October the lower-grade children are being encouraged to drink milk; the upper-grade pupils are being taught the value of milk as a perfect food and its relation to growth. When several children from one family are being encouraged to drink milk and to appreciate its value as a food, the matter will doubtless become a topic of conversation in the home, and much interest in the use of milk will be created throughout the family.

Let your aim be to instill in the pupils a desire to establish those habits which are essential to growth and to health.

Subject matter has been prepared for two class periods each week.

SEPTEMBER

CLEANLINESS

Suggestions that promote interest in health

Place a health bulletin board in your room. Have the pupils post pictures and clippings on cleanliness.

LESSON I

Personal cleanliness

To the teacher:

Arrange to obtain the health chore folders. (The Foreword to this grade explains their use and where they may be obtained.) They are to be presented to the pupils in October.

Assign a lesson on cleanliness to be studied from a hygiene textbook. Develop the reason for the following health habits:

1. I wash my face, hands, ears, and neck and I clean my finger nails every day.
2. I wash my hands before each meal.
3. I take a full bath and put on clean clothing more than once a week.
4. I try to keep fingers, pencils, and everything unclean away from my nose and mouth.
5. I try to cover up each cough and sneeze.

LESSON II

Have the pupils read of the discoveries of Louis Pasteur. Have several pupils give detailed outlines of their work.

LESSON III

Develop a lesson on what the discoveries of Pasteur teach us about the necessity of:

1. Keeping everything unclean away from nose, mouth, and eyes
2. Covering up each cough and sneeze

LESSON IV

Discuss the daily habits of personal cleanliness that pupils in this grade should observe.

LESSON V

Cleanliness of schoolrooms and school yards

Assign a lesson on cleanliness of schoolrooms and school yards to be studied from a hygiene textbook. Discuss the points:

1. How we should care for our schoolroom:
   - *a.* Desks
   - *b.* Floors
   - *c.* Blackboards
   - *d.* Shelves
   - *e.* Book closets
   - *f.* Window shades
2. How we should care for our school yard:
   - *a.* Papers
   - *b.* Rubbish
   - *c.* Fences
   - *d.* Trees or shrubs
   - *e.* Outbuildings

LESSON VI

Civic responsibility

Develop a lesson on our responsibility in habits of cleanliness toward:

Ourselves
Our younger brothers and sisters
Our homes
Our community

LESSONS VII AND VIII

Have the pupils write short essays on "How Cleanliness Affects Our Health and Happiness."

References

O'Shea and Kellogg, *Health Habits*, chapter xvii. Macmillan Company, 60 Fifth Avenue, New York.

Winslow, *Healthy Living*, Volume II, pages 151–153, 239–243. Charles E. Merrill Company, 440 Fourth Avenue, New York.

OCTOBER

FOOD

Suggestions that promote interest in health

Continue the use of the health bulletin board, placing on it pictures and clippings suggesting the right kinds of food.

LESSONS I AND II

Weigh and measure the pupils. Place the record on the classroom weight chart. (See page 489, Figure 52.) (In the Foreword to this grade we have included a paragraph on the process of weighing and measuring.) Read to the pupils the article on "Malnutrition," page 492. The Weight-Height-Age Tables on pages 487 and 488 give the normal weights of boys and girls.

LESSON III

Malnourishment and underweight

As a basis for presenting the following lessons, read the article on "Food," page 514.

Assign a lesson on food to be studied from a hygiene textbook. Discuss the following points and their relation to malnourished and underweight conditions:

1. Excessive indulgence in sweets—candy, pastry, or indigestible food
2. Poorly planned meals

3. Eating irregularly, between meals
4. Bolting food without chewing
5. Drinking tea or coffee instead of milk
6. Insufficient sleep
7. Poor ventilation
8. Going to too many moving pictures.
9. Overexertion or lack of exercise
10. Overwork in school or out
11. Decayed teeth, diseased tonsils, adenoids
12. Habitual constipation

LESSON IV

Food principles

Assign a lesson on food principles to be studied from a hygiene textbook. In studying the classifications as given in the table below have the pupils learn to identify the commonly used foods according to their classification. (Refer to "A Simple Guide for Meal Planning," page 496.)

1. Proteins.....Strength
2. Carbohydrates.....Heat and energy
3. Fats.....Heat and energy
4. Mineral matter.....Bone and teeth building
5. Water.....Cleansing—cooling

Proteins:

Abundant in meats and animal foods
Beef, fish, eggs, peas, beans, and others

Carbohydrates:

Most abundant in plant foods, as potatoes and cereals—foods rich in starch and sugar

Fats:

Largest quantities in animal foods
Fat meats, butter, cheese, nuts, and others

Mineral matter:

Table salt or minerals of like substance, as lime and iron, are essential to the building of the skeleton.

Water:

Almost all foods contain a certain quantity of water. Examples:

Milk.....85 per cent or more water
Orange.....65 per cent or more water
Slice of bread.....35 per cent or more water

We should drink about six or eight glasses of water a day, besides the water we get in our foods.

Discuss these important points concerning food:

1. It should be clean.
2. It should be properly cooked.
3. It should be eaten slowly, chewed thoroughly.
4. It should be taken at regular hours.

LESSONS V AND VI

Caloric values

Each pupil should have a copy of the table of calories. If this is impossible, you might have a pupil write a list of the commonly used foods on the blackboard. Often a hygiene textbook gives a table of calories.

The energy value of food is measured in units called calories. "*Variety* of foods is quite as essential as

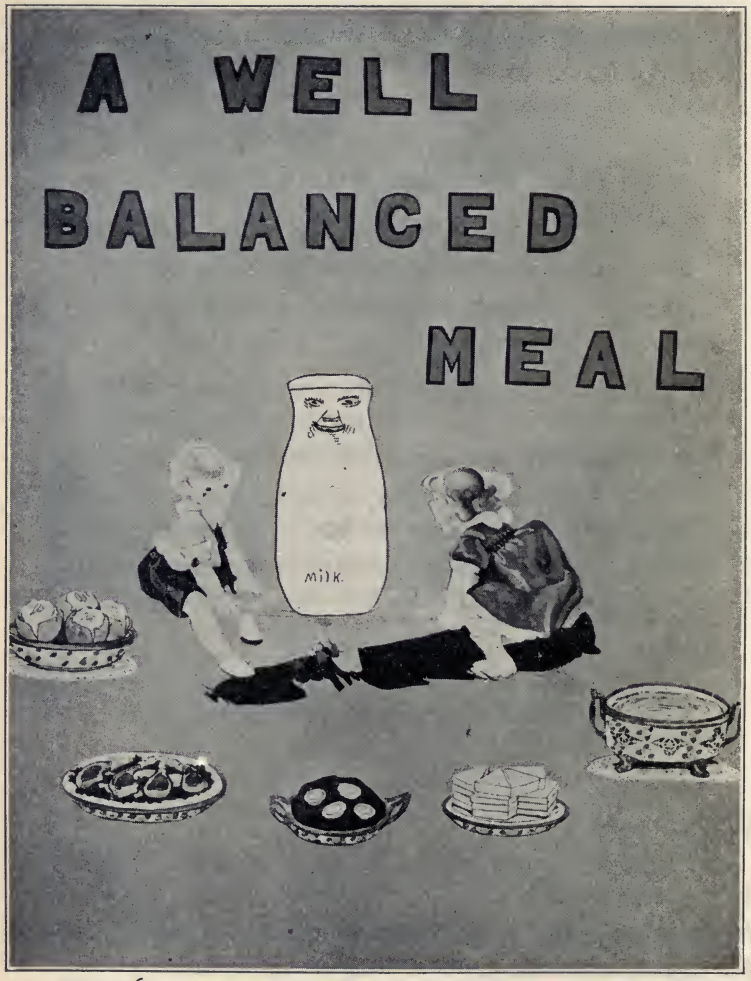


FIG. 36. POSTER SHOWING A WELL-BALANCED MEAL

quality or *quantity*. Such foods as lettuce, greens, various rough-fibered vegetables, and shredded wheat biscuit are eaten for the bulk or roughage they give, though they may not be as high in caloric value."

The following table of calories required for boys and girls is taken from authorities on this subject. The requirements of this table can be followed if the children will study the accompanying list of diversified foods with their caloric value. Study the relative food values of the various foods given in this table.

TABLE OF CALORIC REQUIREMENTS*

AGES	CALORIES REQUIRED PER DAY	
	BOYS	GIRLS
5–6	1300–1600	1220–1520
6–7	1400–1700	1300–1600
7–8	1500–1800	1380–1680
8–9	1600–1900	1460–1760
9–10	1700–2000	1550–1850
10–11	1900–2200	1650–1950
11–12	2100–2400	1750–2050
12–13	2300–2700	1850–2150
13–14	2500–2900	1950–2250
14–15	2600–3100	2050–2350
15–16	2700–3300	2150–2450
16–18	2700–3400	2250–2550
Women, 2550 Men, 3500		

*From *Bulletin* of the National Tuberculosis Association, April, 1920.

Children finding themselves below standard in weight will be interested in working out their own menus from the lists of foods given in the table of caloric values on the following pages.

Table of Caloric Values

	Quantity	Calories
CEREALS		
Rolled oats	1 cup	147
Bread	1 slice	202
Bread with butter	1 slice	230
Bread with peanut butter	1 slice	221
Ginger bread	1 slice	281
Corn bread	1 slice	194
Shredded wheat	1	110
Farina	1 cup	169
Rice	1 cup	180
Cream of wheat	1 cup	165
Corn-meal mush	1 cup	169
Cracked wheat	1 cup	198
Hominy	1 cup	143
Macaroni and cheese	1 cup	302
Barley soup	1 cup	131
Hot biscuit	1	104
Eggs, soft boiled or poached	1	70
MEATS		
Meat loaf	1 slice	209
Roast lamb	1 slice	333
Hamburger steak	1 slice	138
Beef stew	1 cup	691
Sardine	1	65
Frankfurter	1	180
Fish chowder	1 cup	372
Brown gravy	½ cup	36
Roast beef	1 slice	333
Cheese fondue	1 cup	529
Meat balls and rice	1 cup	169
Baked fish	1 slice	201
Pot roast	1 slice	240
Codfish balls	1	88
Corn beef	1 slice	608
Smoked pork	1 slice	827

TABLE OF CALORIC VALUES—*Continued*

	QUANTITY	CALORIES
VEGETABLES		
Boiled onions	1	49
Pea soup	1 cup	279
Escalloped potatoes	2 htbs.	242
Escalloped tomatoes	1 cup	198
Baked beans	1 cup	385
Beets	1	83
Cabbage salad	1 cup	32
Lettuce	4 leaves	8
Peas and carrots	1 cup	69
Bean loaf	1 cup	547
Tomatoes	2 raw	41
Greens	1 tb.	28
Lima beans	1 cup	326
Potato salad	1 cup	143
Lentils	1 cup	269
Baked potato	1	147
Boiled cabbage	3 tbs.	100
Spinach	2 tbs.	57
Boiled potato	1	143
Bean soup	1 cup	505
DESSERTS		
Syrup	1 tsp.	117
Rhubarb sauce	1 tb.	78
Cream toast	1 slice	348
Ginger cooky	1	41
Apple tapioca	1 cup	235
Custard	1 cup	362
Junket	1 cup	208
Cake	1 piece	164
Jelly	1 htsp.	113
Fruit cooky	1	110
Oatmeal cooky	1	115
Fruit cake	1 slice	192
Fruit shortcake	1 slice	350
Cheese	1 cu. in.	90
Fudge	2 pieces	221
Cornstarch pudding	2 htsps.	166

TABLE OF CALORIC VALUES—*Continued*

	QUANTITY	CALORIES
Indian pudding	2 htsps.	225
Steamed fruit pudding	2 slices	569
Bread pudding	1 cup	380
FRUIT		
Prunes	5	143
Apple sauce	3 tbs.	136
Baked apple	1	120
Baked banana	1	144
Apricot or peach sauce	3 tbs.	218
Dates	10	269
Berries (with 1 tsp. sugar)	3 htbs.	120
Orange	1	75
Banana	1	90
DRINKS		
Milk	1 quart	695
Milk	1 glass	220
Cocoa	1 cup	126
Coffee	1 cup	00
Tea	1 cup	00

LESSONS VII AND VIII

Have the pupils keep a record of their daily intake of food and have them count their calories to see how they measure up.

References

Rose, *Feeding the Family.* Macmillan Company, 60 Fifth Avenue, New York.

Rosenau, *The Milk Question.* Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Pamphlet: "Green Vegetables and Their Uses in the Diet," *Agriculture Handbook, 1911,* Separate No. 582. United States Department of Agriculture, Washington, D. C.

FOOD (*Continued*)

Suggestions that promote interest in health

Have each pupil make his own weight chart. He should indicate his expected gain with a red line and record his actual weight with a blue line. (See Figure 37, page 322.)

LESSONS I AND II

Weigh the pupils. Place the record on the classroom weight chart. Have each pupil record his weight on his individual weight chart and indicate the probable reasons for gain or loss.

LESSON III

Milk

Read to the pupils the article "All about Milk" on page 499.

LESSONS IV, V, VI, AND VII

Menus

Have each pupil find his caloric requirement according to the table on page 317. Plan menus of well-balanced breakfasts, dinners, and lunches or suppers. Have menus planned according to individual needs. (The underweights should increase their intake of fats, starches, and sugars; the overweights should decrease their intake of fats, starches, and sugars.) Discuss the menus planned by the pupils and offer suggestions when necessary.

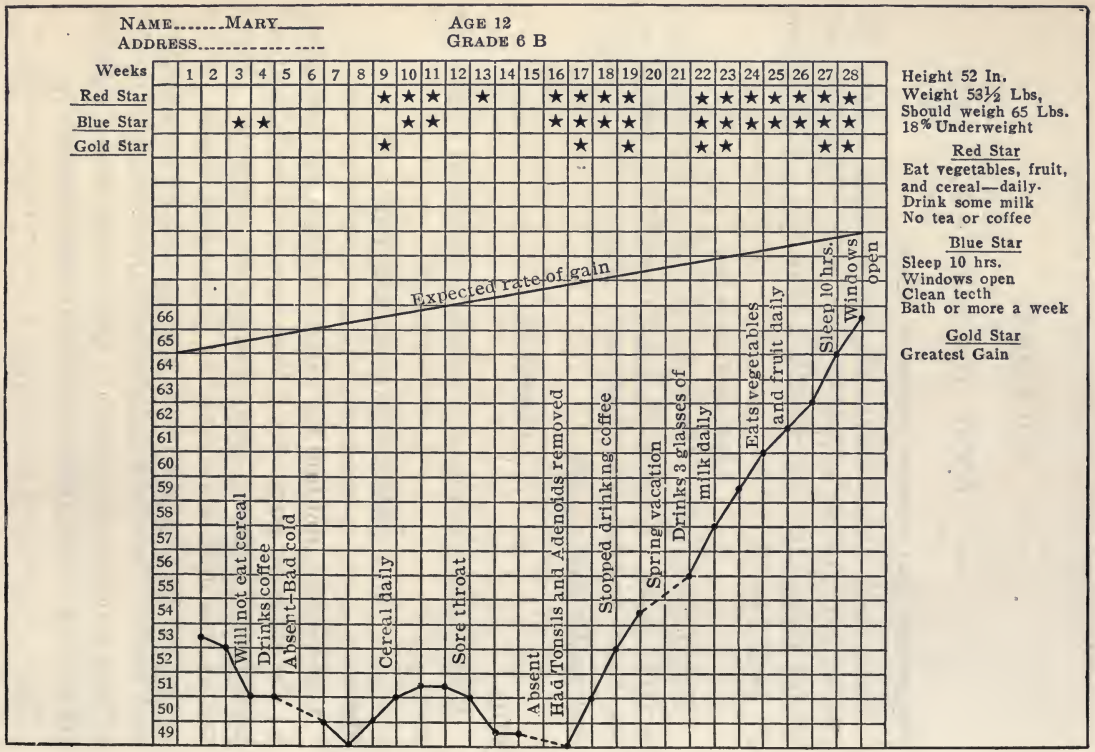


FIG. 37. INDIVIDUAL WEIGHT CHART

The food rule should be carefully observed:

A maximum of vegetables, fruits, cereals, and milk
A minimum of meats, sweets, and pastries
At least a glass of milk with each meal
No tea or coffee

The following planned menus may be used as guides. They are taken from *The Diet of the School Child*, Department of the Interior, Bureau of Education, Washington, D. C. (Refer to the planned menus, page 497.)

Breakfasts	Lunches or Suppers
1	1
Force or corn flakes, 1 cup, with milk	Milk toast or rice, ½ cup, with milk
Egg	Baked potato, 1
Brown bread and butter, 2 or 3 slices	Bread and butter, 2 to 3 slices
Milk to drink, 1 glass	Milk to drink, 1 glass
2	2
Shredded wheat, 1 with milk	Baked potato, 1
Corn bread and butter, 2 pieces	Poached egg on toast, 1
Apple sauce or stewed pears or an orange	Stewed prunes, 4 to 5
Milk to drink, 1 glass	Plain cookies, 1 to 2
	Milk, 1 glass
3	3
Oatmeal, ½ to ⅔ cup, with milk	Baked potato, 1
Toast and butter, 2 to 3 slices	Bread and butter, 2 to 3 slices
Apple sauce, 2 to 4 tablespoonfuls	Stewed apricots, 2 to 3 tablespoonfuls
Milk to drink, 1 glass	Cottage cheese, 1 tablespoonful
	Milk, 1 glass

DINNERS

1	2
Chicken with rice, small portion	Fish or clam chowder, ¾ cup, or egg
Mashed potato, 2 to 3 tablespoonfuls	New beets or spinach, 2 to 3 tablespoonfuls
Dandelion greens or boiled onions, 2 to 3 tablespoonfuls	Boiled potato
Stewed fruit, 2 to 3 tablespoonfuls	Bread and butter, 2 to 3 slices
Bread and butter, 2 to 3 slices	Custard or junket, ½ cup

3

Rice and meat loaf, small portion
Stewed celery or cauliflower, 2 to 3 tablespoonfuls
Bread and butter, 2 to 3 slices
Baked Indian pudding, 2 tablespoonfuls

LESSON VIII

Read the following story:

THE MILK FAIRIES

Johnnie had not been very well for some time. He was not really sick, but he just did not seem to be as well and strong as some of the other children. Sometimes he was so cross and fretful his mother did not know just what to do with him. Everybody was kind to the little boy, and Mother tried

so hard to prepare good things for him to eat. The doctor who lived next door told him to drink lots of milk, at least a quart every day, but when Mother said, "Come, Johnnie, drink this nice glass of milk," Johnnie answered, "I'm tired of milk. I want some tea or coffee or an ice cream soda." Sometimes he was very naughty and would not eat his oatmeal and milk for breakfast, or bread and milk for supper.

One day he had been very naughty, and poor Mother looked so grieved. He said he did not want his breakfast; the cat could have the oatmeal and milk for all he cared. It was a warm day, and Mother told him to go out of doors and play. But there did not seem to be any one to play with, so he finally lay down on the grass under a big tree.

And then—the strangest thing happened! The big tree suddenly became a great big milk bottle! It looked just like the bottles the milkman left every morning, and it was marked, "1 quart of pasteurized milk." Johnnie knew what that big word meant, for mother had explained to him that pasteurized milk was best for children who live in the city to drink, but he surely was surprised to see that milk bottle there.

Then what do you suppose happened? Johnnie heard a bugle blow; a door opened, and out of that milk bottle came just lots and lots of tiny white elves and fairies! Johnnie tried to count them; there were six rows, with a hundred in each row, and then another row of fifty. Think of that—six hundred and fifty fairies came out of that bottle! They began to march and dance and sing, and then they formed a word. Johnnie looked closely. What! It was the word he could not spell in school the other day, and teacher made him write it a hundred times. *C-a-l-o-r-i-e-s*, calories, but what did the fairies have to do with calories? Johnnie heard them sing, and he listened carefully.

"Oh, we are the fairy calories,
In a bottle of milk we live;
We make children well and strong,
And rosy cheeks we give."

"Well," thought Johnnie, "if I had known that calories were fairies I guess I'd have learned the word sooner." He watched the fairies closely, and suddenly they separated into groups. One hundred and ninety-five of them ran over to the milk bottle; a door opened, and out stepped the dearest little girl fairy. The others danced around her, and they all came over to Johnnie. He thought she was the dearest, sweetest, prettiest little girl he had ever seen.

She made him a pretty little bow and said, "Hello, little boy, who are you? And what are you doing in Fairy Milk Land?"

He said, "My name is Johnnie, and I live over in that house."

Then she laughed, such a happy laugh, and said, "My name is Sugar, and I live in that milk bottle. You thought I lived only in the sugar bowl and in the candy store down at the corner, didn't you? Well, I'm in every glass of milk you drink, and that is why it is so nice and sweet. And I help to keep you warm, too. Some members of my family live in cake and candy, and if you eat too much of that kind of food you will be sick, but the milk you drink will keep you well." She laughed, clapped her hands to call her fairies, and off they danced down the field.

But they had no sooner gone than Johnnie saw three hundred and forty seven of the other fairies run over to the milk bottle. Up near the top of the bottle a door flew open and out stepped a dear little fat fairy. She and the others danced up to Johnnie. "Hello, Johnnie," said the fairy, "my name is Fat."

Johnnie laughed. He had guessed her name.

"Oh," said she, "I've got another name; it's Cream, and when I am frozen you call me Ice Cream. I live in the top of the milk bottle. Folks usually shake the bottle before they pour out the milk so that I won't be all in one glass, but if they let the milk stand awhile I come right up on top again. I'm rich, and when I live in the milk, people say, 'What nice rich milk that is!' I keep children healthy, and make them grow, and help to keep them warm." She called her fairies and off they danced.

Johnnie wondered if that milk bottle held any one else. He heard the bugle blow again, saw the rest of the fairies run over to the milk bottle, and then a big, strong boy fairy stepped out. He was dressed in a uniform and looked like a captain. He formed his calories into line, and they marched over to Johnnie. He saluted and said, "My name is Protein." Johnnie had never heard that name before, so the fairy said, "It is spelled *p-r-o-t-e-i-n*, and it means muscle builder." He rolled up his sleeves and showed Johnnie what a lot of muscle he had. Then he picked up some of the calories and held them out, and said, "See how strong I am! See what a load I can lift! I live in the milk bottle, and when boys and girls drink lots of milk I build muscle for them. Then they grow into strong men and women and are able to do their part in the work of the world."

Then Johnnie wanted to talk to him longer, but he called his calories, and they ran down the field playing leapfrog, and jumping and running just as all strong boys do.

Again Johnnie watched that milk bottle, and once more the bugle blew. Another fairy boy in a soldier's suit came out. He was tall and straight, and carried his head and shoulders well. When he smiled he showed his teeth, and they were white and strong. He came to Johnnie and said, "Hello, John, my name is Mineral Matter. I live in the milk

bottle, and if you drink enough milk I'll make your bones and teeth strong, and you will be able to stand up as straight as I do. Of course you have to keep your teeth clean, or they will not stay white very long."

Off he went to join the others, and then Johnnie heard a gurgle of laughter. It sounded just like a brook running over the rocks in the springtime. Out danced a fairy girl in a bright, shining dress. It sparkled and shone just as the dewdrops do when the sun shines on them. "I'm Water," she said to Johnnie. "I live in the milk bottle, and that is why you can drink milk. You must drink it very, very slowly, so as not to drown the fairies." Then she too ran off.

Johnnie thought all of the fairies must be out of the bottle by that time, but he saw two little faces peeping out as though they were trying to play hide and seek. "You can't guess our name," said one of them when she saw Johnnie had spied her. Johnnie guessed every name he knew of, but the fairies kept saying, "No, that isn't it." Finally they had to tell him. "We are the Vitamine twins," said they; "one of us lives with water and the other with milk, and we are the most important fairies in the bottle, for we make you grow." Then they ran off to join the others.

Johnnie watched the fairy calories as they worked and played. The protein calories were chopping and gathering wood, while the sugar and fat calories were building fires. They were singing and singing and having such a good time. They worked together like one big family, and as they worked they sang:

"We make little folks strong,
We keep little folks warm,
We make their cheeks so rosy and red,
Oh, milk is the best food on which to be fed."

Just then some of the fairies saw some flies coming; they ran over to the milk bottle to be sure that it was covered, for of course flies must never be allowed to get into the milk. They wanted to be very sure to keep all of the dust out, too, because the good fairies can live only in a clean home. A bell rang and they all jumped back into the milk bottle, waving their hands to Johnnie as they went. Then Johnnie heard some one calling, "Jonnnie, come, Johnnie, it is lunch time." He jumped up and ran into the house, and what do you think was the first thing he said? "Please, Mother, may I have a big glass of milk?" Of course Mother gave it to him, and while he drank it he told her all about the Milk Fairies.—By courtesy of the National Dairy Council.

References

Bryant, *School Feeding.* J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

Holt, *Food, Health, and Growth.* Macmillan Company, 60 Fifth Avenue, New York.

Pamphlet: "Fruit as an Aid to Health." Life Extension Institute, New York.

Valuable material on milk may be obtained from the National Dairy Council, 910 South Michigan Avenue, Chicago, Illinois.

DECEMBER

TEETH

Suggestions that promote interest in health

Have two pupils from the lower grades demonstrate how they brush their teeth.

LESSONS I AND II

Weigh the pupils. Record the weights on the classroom weight chart. Have each pupil record his weight on his individual weight chart and indicate the probable reasons for gain or loss.

LESSON III

Kinds of teeth

Assign a lesson on the teeth to be studied from a hygiene textbook. Have the pupils review the names and location of the temporary and of the permanent teeth. (Refer to Grade V, page 278, Figure 35, for a chart showing the teeth.)

LESSON IV

Structure of the teeth

Assign a lesson on the structure of the teeth to be studied from a hygiene textbook. In connection with the textbook material, develop the reasons for not biting hard food or other hard objects.

LESSON V

Food in relation to teeth; use of teeth

Have a class discussion on:

1. Foods that are good for the teeth (the article on "Food," page 514, contains a paragraph on food in relation to teeth)
2. Why we exercise our teeth and jaws
3. The use of the teeth in mastication, talking, and giving contour to lines of face

LESSON VI

First permanent or six-year molars:

1. They are the first permanent teeth to appear; that is why they are sometimes called first permanent teeth.
2. They come in at about the age of six years; that is why they are sometimes called six-year molars.
3. To locate them begin with central incisor and count back to your sixth tooth. You will find them on both sides, in the upper and lower jaws. They are the largest of the permanent teeth.
4. They decay easily unless they are well cared for, because they are deeply grooved and particles of food often lodge in these grooves. Decay is often not considered serious because they are thought to be baby teeth.
5. They act as guides to the other permanent teeth. If you lose your six-year molars before your permanent teeth are in their proper places, the permanent teeth will not come in in line.

Have the pupils locate their first permanent molars.

LESSONS VII AND VIII

Toothbrush demonstration

To the teacher:

The proper process of brushing the teeth is often omitted in this grade because of an inclination to feel that the pupils "should know" or that it is "too personal." When we know from observation that the greater number of adults fail to appreciate the importance of this health lesson, our belief in the necessity of teaching it thoroughly to all pupils throughout the grades is strengthened. Even the most earnest followers of health find their interest in this habit renewed after an actual demonstration.

In preparation four or five pupils should be told to bring their brushes.[1] They should be reminded to place them in an envelope or to wrap them in clean paper. The pupils should be taken to a place where running water is available, a pitcher of water, a basin, and individual drinking cups should be provided. If the pupils do not have toothpaste, encourage the use of salt or soda. Give special attention to the way the pupils grasp the brush. Figure 62 on page 548 shows this very well. No doubt you will find that the pupils of this age have acquired various methods of using the toothbrush. This is not surprising when we know the differences of opinions on this subject which exist among members of the dental profession. However, the following method seems to be quite generally accepted.

Order in which teeth should be brushed:

1. Brush inner surfaces first.
2. Brush chewing surfaces.
3. Brush outer surfaces:
   - *a.* Back teeth
   - *b.* Side teeth
   - *c.* Front teeth

[1] Many of the toothpaste companies and the toothbrush concerns as well are very liberal in supplying free samples of toothpaste, and brushes at a minimum cost. Upon request, they often supply interesting literature.

Method of using the brush:

1. Open the mouth enough to allow an easy motion of the brush.
2. Use a rolling motion of the wrist, not the force of the whole arm.
3. Brush upper teeth down.
4. Brush lower teeth up.
5. Include the gums on the strokes — brush vigorously.
6. Use at least ten strokes to each movement. (By this we mean ten strokes to the back teeth, ten to the side teeth, and ten to the front teeth in both the upper and lower jaws.)
7. Rinse the brush often.
8. When the brushing is finished, rinse the mouth several times, forcing water back and forth through the teeth.

When the pupils have finished brushing their teeth, call the attention to the feeling of cleanliness.

(We have given four lessons for this work so that every pupil may be given an opportunity of going through the drill. Two lessons are given in December and two in January.)

References

Allen, *Civics and Health*, chapter ix. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

Ferguson, *A Child's Book of the Teeth*. World Book Company, Yonkers-on-Hudson, New York.

O'Shea and Kellogg, *Health Habits*, chapter xvi. Macmillan Company, 60 Fifth Avenue, New York.

Terman, *The Hygiene of the School Child*, chapter xi, page 167. Houghton, Mifflin Company, 2 Park Street, Boston, Massachusetts.

JANUARY

CARE OF THE EYES

Suggestions that promote interest in health

Have a Conservation of Eyesight Week. Have pupils collect posters and interesting material for an exhibit and invite other classes in to view it. The pupils may give short talks on the conservation of eyesight. (Material may be obtained from the Eye Sight Conservation Council of America, Times Building, New York City.)

LESSONS I AND II

Weigh the pupils. Record the weights on the classroom weight chart. Have each pupil record his weight on his individual weight chart and indicate the probable reasons for gain or loss.

LESSONS III AND IV

Toothbrush demonstration

Continue giving the toothbrush demonstrations.

LESSON V

Care of the eyes

To the teacher:

The care of the eyes and the way to prevent eyestrain should be included in this grade as a very important health lesson. The pupils have been reading various kinds of print, and unfortunately, in many instances, have been

subjected to poor lighting conditions in the school as well as in the home. The statistics which are widely quoted give us 20 to 25 per cent defective vision in school children. Are we not facing a tremendous responsibility when we realize that poor lighting conditions and improper habits in using the eyes are largely responsible for this great group of handicapped children? Early attention to defective vision often forestalls serious eye troubles in later years. The following lessons should be given very earnest attention and will, we hope, stimulate individual interest in the care of the eyes. Read the article "The Responsibility of a Teacher," page 524.

Assign a lesson on the care of the eyes to be studied from hygiene textbook. Emphasize the following points:

1. Avoid the use of public towels.
2. Avoid rubbing the eyes with the hands or a soiled handkerchief.
3. The eyes should be washed daily with warm water and a clean wash cloth.
4. The condition of "red eyes" should not be considered lightly. If it persists for a day or more, your physician or an oculist should be consulted.
5. A foreign body in the eye should be removed at once. In many cases it may be easily removed by some one at hand; if he fails, the child should be taken to a physician.

Teach the pupils that concentrated lye should never be a common article in the home. (Lye is responsible for many of the tragic accidents which have resulted in partial or total blindness.) Discourage the use of "nigger shooters," bows and arrows, popguns, air guns, bean shooters, and any other plaything of this type.

LESSON VI

Conditions that suggest vision defects

Headaches—especially where they frequently occur in the afternoon
Frowning
Holding the book close to the eyes
Bending the head too close to the paper while writing
Red lids
Sensitiveness to light
Habit of miscalling words while reading
General nervous conditions
Frequent injury on the playgrounds
Frequent stumbling against the desks
Inability to write a straight line

LESSON VII

Schoolroom lighting

Assign a lesson on schoolroom lighting to be studied from a hygiene textbook. Emphasize these points:

1. The light should not be glaring; neither should it be gloomy.
2. The pupils should sit so as to allow the light to come over the left shoulder; this prevents shadows on the book or paper. (If one is left-handed, the light should fall over the right shoulder.)
3. Pupils should *never* sit facing a light.
4. The book should be held from fourteen to sixteen inches from the face. (Show distance by actual measurement.)

5. Children should not be forced to keep their eyes on print for long periods of time. A few minutes' rest often helps to prevent muscle strain.

LESSON VIII

To the teacher:

Study the lighting conditions in your schoolroom. If they are extreme, make an effort to correct them. (See Figures 38–41, pages 376, 377, 380, and 381.) Observe the habits of the pupils as to their position in relation to light and in holding their books. Study the habits of the pupils in the interest of observing eyestrain or defects of vision.

If there is not a school nurse, test the vision of your pupils. (Instructions on the process of testing vision are given on page 527.)

Include a check on the care of the eyes on the health chore folder.

Read the following to the pupils:

THE EYES OF A CHILD

I am brown, or blue, or black, or gray. I have faith in everyone and everything. I trust the world. I still possess the crystal clearness of innocence. I see nothing sordid nor unlovely. The pictures I send to the baby brain are magical. I am not for sale—I cannot be bought—I am priceless!

I am sensitive. I require care and thought, but I grow weak with overwork or ill health or strain. I resent indifference or neglect. When I am not as strong as I should be, I protest against overexertion in the schoolroom; I rebel against long hours of study or reading at home where the lights are so dim that I cannot see.

I sound my warnings daily. I cause misery to the brain and a throbbing head. My punishment is relentless. I worry myself into aching, twitching, burning coals of fire.

I cannot work—I cannot sleep—I can only weep. The parents of the baby body in which I dwell blame fretfulness, illness, apathy, dullness, and stumbling gait, but I am the cause. I fairly sing and dance and thrill with light and joy and gladness when I am healthy and strong and rested. If I need aid from the skilled men who know me, who study me, who give me what I must have, then I respond in sheer gratitude. .

If I have behaved badly and have caused pain, it is only because I have needed help. With the assistance these learned men can give me, I live until I am no longer wanted. I never return once I go. I go reluctantly if go I must. I speak that all parents may hear.

Remember, I am the eyes of a child!

Conserve the eyesight of your child. It is a duty you owe the child, yourself, the community, the state, and the nation. But, above all, you owe it to your child!—By courtesy of the Eye Sight Conservation Council of America.

References

Terman, *Hygiene of the School Child*, chapter xiv, page 245. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Winslow, *Healthy Living*, Vol. II, chapter xvi, pages 189–196. Charles E. Merrill Company, 440 Fourth Avenue, New York.

FEBRUARY

POSTURE

Suggestions that promote interest in health

Appoint a committee of pupils to obtain from the American Postural League, 1 Madison Avenue, New York City, the posters and literature which this league offers. This material should be used in connection with the month's work.

LESSONS I AND II

Weigh the pupils. Record the weights on the classroom weight chart. Have each pupil record his weight on his individual weight chart and indicate the probable reasons for gain or loss.

LESSON III

Standing and sitting posture

To the teacher:

Correct sitting and standing postures and properly fitted shoes are important factors governing the health of the pupils. The pupils are growing rapidly, and every opportunity should be given them to grow straight and strong. While a correct posture is largely dependent upon a well-nourished body and one free from physical defects, we also know that carelessness in maintaining correct posture enters in as an important factor. In the consideration of the postures of your pupils let your aim be to maintain the good postures and to improve the poor postures through

encouraging habits of right living and through correcting careless habits of posture.

Assign a lesson on posture to be studied from a hygiene textbook.

Discuss correct sitting posture. (See Figures 64, 65, pages 550, 551.) Demonstrate correct sitting posture:

Hips and shoulders against back of seat
Both feet on the floor
Abdomen in
Head up
Chin in

Discuss correct standing posture. (Study the types of posture shown in Figure 63, page 549.) Demonstrate correct standing posture:

Feet parallel
Weight evenly distributed on balls of feet and heels
Abdomen in
Head up
Chin in

Have the pupils demonstrate sitting and standing in correct posture.

Posture in bed

We should lie straight, on face, on side, or on back. (Children of this age should be in bed ten hours each night, which is nearly one-half of their time. Therefore it is as necessary for them to maintain a straight position while at rest as it is to maintain a good posture during their waking hours.) The bed should be firm and smooth. The pillow, if used at all, should be thin and soft.

LESSON IV

Care of the feet; shoes

Assign a lesson on the care of the feet to be studied from a hygiene textbook. Emphasize the following points:

1. The shoes should be longer than the feet.
2. The shoes should be wider than the feet.
3. The heel should be broad and flat.
4. The shank should be flexible.
5. Improperly fitted shoes cause weak foot arches, corns and calluses, bunions, and other pedal defects.

If possible, show the children a correct walking shoe.

LESSON V

Obtain a mirror and occasionally place it where each pupil will be able to observe his posture; call attention to the position of the feet. Have the pupils stand in good posture; have them march to rhythm with the windows open.

LESSON VI

Have the pupils write essays on "The Relation of Good Posture to Health."

LESSON VII

Have the pupils read and discuss their essays.

LESSON VIII

Have the pupils make posters on posture.

References

Bancroft, *The Posture of School Children.* Macmillan Company, 60 Fifth Avenue, New York.

Terman, *The Hygiene of the School Child*, chapter vii, pages 72–87. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

MARCH

FRESH AIR; EXERCISE

Suggestions that promote interest in health

Appoint a monitor whose duty it is to make a record of the temperature of the schoolroom in the morning, at recesses, and at noon. He should keep the room ventilated so that the thermometer will not register above 69°. At the same time he should adjust the window shades so as to admit the proper amount of light.

LESSONS I AND II

This is the month in which we *measure* as well as weigh the pupils. Note the results on the classroom weight chart. Have each pupil record his weight on his individual weight chart and indicate the probable reasons for gain or loss.

LESSON III

Ventilation

Assign a lesson on fresh air to be studied from a hygiene textbook. Emphasize these points:

1. How to ventilate the schoolroom properly
2. The importance of a thermometer in the schoolroom
3. The effects of a properly ventilated schoolroom on the health and comfort of the pupils

LESSON IV

Outdoor exercise and fresh air

Assign a lesson on outdoor exercise and fresh air to be studied from a hygiene textbook. Read to the pupils the article on "Health and Recreation," on page 568. Emphasize these points:

1. Children should spend at least an hour each day in the open air.
2. It is never too cold to be outdoors if their clothing is warm enough to protect them.
3. They should accustom themselves to being outdoors.

Every pupil should be urged to play outdoors every day unless he has had a recent illness or is for some other reason unable to do so.

LESSON V

If there is a department of physical education in your schools, emphasize the value of the lessons which they present. If there is not such a department, you may use the exercises given on pages 587 ff.

Have the pupils play a game or do countermarching with all windows open.

LESSON VI

Have the pupils make up original fables emphasizing the value of fresh air. Example:

One night Bob was getting ready for his bed on the porch. "Why do you sleep outdoors?" asked his cousin who had come to visit him. "You are strong and husky." "That is why I sleep out," replied Bob. "Fresh air keeps me strong and husky."

LESSON VII

Have the pupils read and discuss their original fables on "Fresh Air."

LESSON VIII

Read to the pupils the story "A Knight without Reproach," page 533.

References

Dr. C. Ward Crampton, *Physical Exercise for Daily Use.* G. Putman's Sons, 2 West 45th Street, New York.

Health in Play. The American Child Health Association, 370 Seventh Avenue, New York.

APRIL

REST; CHEERFULNESS

Suggestions that promote interest in health

Have the pupils clip from magazines short stories that suggest a good sense of humor. Read these to the pupils so that the entire group may enjoy them.

LESSONS I AND II

Weigh the pupils. Record the weights on the classroom weight chart. Have each pupil record his weight on his individual weight chart and indicate the probable reasons for gain or loss.

LESSON III

Rest

Assign a lesson on rest to be studied from a hygiene textbook. Discuss the various methods of resting, such as change of work, games and recreation, and relaxation and sleep.

LESSON IV

Value of sleep

Develop a lesson on the value of sleep. Emphasize these points:

1. Pupils of this age should have at least ten hours of rest in bed.
2. They should sleep in well-ventilated rooms. (Discuss in detail the ventilation of bedrooms.)

3. They should remove all day clothing.
4. They should sleep alone if possible.

LESSON V

Good mental habits

Assign a lesson on good mental habits to be studied from a textbook on hygiene. Develop the lesson: "I try to be cheerful, clean-minded, straightforward, and helpful toward others." Have the pupils discuss the value of trying to observe this rule:

1. In school
2. On the playground
3. At home
4. On the streets
5. In all public places

LESSONS VI, VII, AND VIII

Have each pupil work out a health book which illustrates the health habits that have been presented during the year. These books may follow the suggestions given in Figures 32–34, pages 270–272, and Figures 74–76, pages 560–562.

References

Terman, *The Hygiene of the School Child*, chapter xx, page 362. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

O'Shea and Kellogg, *Making the Most of Life*, chapter xii, page 202. Macmillan Company, 60 Fifth Avenue, New York.

MAY

REVIEW

Suggestions that promote interest in health

Give the pupils new health chore folders. Encourage them to check their health chore folders throughout the vacation. Place special emphasis upon the importance of maintaining a high daily health standard and also upon the correction of obvious physical defects.

LESSONS I AND II

Weigh the pupils. Record the weights on the classroom weight chart. Have each pupil record his weight on his individual weight chart and indicate the probable reasons for gain or loss.

LESSONS III, IV, AND V

Make flash cards. On these cards have such words as "breakfast," "dinner," "lunch," "teeth," "posture," "fresh air," "exercise," "eyes," and other words which suggest health lessons. As you flash the card have different pupils make three or four important statements about the word. For example, the word "breakfast" is flashed. This may suggest 7:30 o'clock in the morning—orange, oatmeal, dark bread, and milk. These cards should be used to review the health lessons which have been presented during the year.

LESSONS VI, VII, AND VIII

Have the pupils write essays on the subject "A Picnic Day the Health Chore Way." They should plan this picnic so as to have the best time possible and yet observe the health rules. The plans should include a discussion of food; of the picnic grounds; of the games and recreation; and of the time they should return home. This may be contrasted with a picnic where health rules are not observed.

GRADE VII

FOREWORD

To the teacher: We trust that we have been able to establish throughout the first six grades a *belief* that daily habits of right living form the basis for physical and mental health and happiness. The daily health standard which it has been our aim to establish requires personal cleanliness, proper food, fresh air and exercise, correct posture, long hours of rest, and cheerfulness. While this daily health standard is still to be maintained throughout the seventh grade, the pupils are given more personal responsibility in the performance of their health duties. We want to enlarge the scope of our health teaching. The pupils now should begin to learn not only that health is dependent upon their personal habits, but that the sanitation of buildings and grounds and the general living conditions of the people about them contribute to their health and happiness.

Throughout the seventh grade we have given suggestions on personal hygiene each month, trusting that these will aid in maintaining the health interest which has been created through the previous grades. The lessons presented deal largely with school and home sanitation. Although we have outlined the points which we especially wish to have emphasized, it will be necessary for you to provide a textbook in hygiene,

the subject matter of which should furnish a background for the material presented.

As a stimulus to interest in personal health, we are asking you to weigh the pupils once each month and to take their height twice each year. We have suggested that October and March may be the most convenient months for measuring. You should weigh the pupils yourself. They are much more interested when they know that you are aware of the results which they obtain. You may ask one of your pupils to record the weights for you. With careful organization, you should be able to weigh about forty pupils in thirty minutes. We have allowed two class periods each month for this work. Heavy coats or sweaters should be removed unless worn to replace necessary clothing. The shoes need not be removed. You may use your judgment in allowing for the extra weight of this clothing. A classroom weight chart should be kept in sight in your room. These charts may be obtained at a minimum cost from the American Child Health Association, 370 Seventh Avenue, New York; or from the Department of the Interior, Bureau of Education, Washington, D. C.; or a local health agency may supply you with them. Many teachers make the chart. (See illustration on page 489, Figure 52.) The article on "Malnutrition," page 492, contains many important facts regarding malnourished and underweight children. The slogan on weigh-day should be: "A growing child should gain in weight each month; he should not lose or remain the same." Make the monthly weigh-day a banner day.

In connection with the outline we have suggested

that the pupils be encouraged to use the daily health chore folders. These should be kept at school and a few minutes should be given daily to check them. The health chore folders used in connection with the Modern Health Crusade furnish a most attractive means of promoting personal health. Full directions as to their use and the complete set of material may be obtained from the National Tuberculosis Association, 370 Seventh Avenue, New York. You may use their chore folders even though you do not use the Health Crusade. If you do not use this material, you may have each pupil make his own folder. (See illustrations on pages 546–547.)

Because the pupils in the upper grades are capable of studying hygiene in a broader way and because much that they learn in school is discussed at home, we have assigned them the same topics in personal health at the same time these topics are being presented to the lower grades, so far as it seems practicable to do so. For example, when the younger children in a family are learning that they should drink milk, and that they should not drink tea or coffee, the older children are discussing why milk is valuable as a food and why tea and coffee are injurious to growing children. This common interest developed among the children of a family will be carried into the home and will do much toward inculcating good habits.

Though the lessons presented include largely subject matter on school and home sanitation, it is our earnest desire that an interest in personal health be maintained.

Subject matter has been prepared for two class periods each week. The last class period each month is allowed for the discussion on personal health.

SEPTEMBER

SCHOOL SANITATION

Suggestions that promote interest in personal health

Have the pupils write health slogans on cleanliness. Select the best ones, print them on a card in large letters, and place them in the schoolroom.

LESSONS I AND II

Weigh and measure the pupils and have each one record his weight on a classroom weight chart. (The Foreword to this grade includes a paragraph on the process of weighing and measuring.)

You should arrange to obtain the health chore folders this month. They are to be presented to the pupils at the beginning of next month. (We have explained their use in the Foreword to this grade.)

LESSON III

School sanitation

Assign a lesson on school sanitation in a hygiene textbook. In connection with this material, present during the month the points outlined in the following lessons.

Location and surroundings of school[1]

The school should be located in as healthful a place as exists in the community.

[1] The material in Lessons III to V is taken from *Minimum Health Requirements for Rural Schools.* Teachers College, Columbia University, New York. By courtesy of the author, Dr. Thomas D. Wood.

Noise. Noise and all other objectionable factors should be eliminated from the immediate environment of the rural school.

Accessibility. It should be not more than two miles from the most distant home if the children walk; not more than six miles from the most distant home if school wagons are provided.

Drainage. School ground must be well drained and as dry as possible. If natural drainage is not adequate, artificial drainage should be provided.

Soil. As every rural school ground should have trees, shrubs, and a real garden or experimental farm, the soil of the school grounds should be fertile and tillable. Rock and clay soil should always be avoided. If the soil is muddy when wet, a good layer of sand and fine gravel should be used to make the children's playground as useful as possible in all kinds of weather.

Size of school grounds. For the schoolhouse and playground, at least three acres are required. (If the rural school plant includes the additional features a teacher's home, a garden, and an experimental farm, which are already in some progressive states accepted and established as educational essentials, then the school grounds should contain eight to ten acres.)

Playground. A playground is not a luxury but a necessity. A school without a playground is an educational deformity and presents a gross injustice to childhood.

Arrangement of grounds. The school grounds should have trees, plants, and shrubs grouped with artistic effect but without interfering with the children's playground or the light of the schoolhouse.

LESSON IV

Considerations in construction of sanitary school buildings

1. Safety
2. Cleanliness
3. Heating and ventilation
4. Lighting
5. Convenience

1. *Safety—Fire prevention:*
   - *a.* Doors should always open outward.
   - *b.* Wood should be avoided as material for construction except in the smallest rural schools where the classrooms are all on the first floor.
   - *c.* Height should never exceed five floors.
   - *d.* Staircases should be wide—44 inches wide.
   - *e.* There should be wire glass in windows.
   - *f.* There should be ample fire escapes.
   - *g.* Automatic sprinklers should be placed where fire is likely to start.

2. *Cleanliness:*
   - *a.* Walls, floors, ceilings, and partitions should be proof against sound, dampness, fire, vermin, and dust.
   - *b.* In both rural and city schools the junction of ceilings and floors with walls should be concave.
   - *c.* Ample provision should be made for washing facilities—at least one basin for every twenty-five pupils, provided with hot and cold running water and non-spring faucets.
   - *d.* In rural schools there should be one basin to every five or six children.

GOOD HOUSEKEEPING IN SCHOOLS

Clean floors:
  Danger of dry sweeping
  Value of oiling
  Neatness
Clean windows
Clean desks
Clean wastebaskets
Absence of flies—practical demonstration. Find breeding places, make traps, etc.
Absence of chalk dust
Have pupils survey their own building and note how nearly it meets the requirements.

LESSON V

Construction of sanitary school buildings—*Continued*

3. *Heating and ventilation:*

The schoolroom should always receive fresh air coming directly from outdoors in one of the following ways:

a. Through wide-open windows in mild weather.

b. Through window-board ventilators under all other conditions except when, with furnace or jacketed stove, special and adequate inlets and exits for air are provided.

Heating:

a. Unless furnace or some other basement system of heating is installed, at least a *properly jacketed stove* is required. (No unjacketed stove should be tolerated in any school.) The jacketed stove should have a direct fresh-air inlet about twelve inches square, opening through the wall of the schoolhouse into the jacket against the middle or hottest part of the stove.

b. The exit for foul air should be through an opening at least sixteen inches square on the wall near the floor, on the same side of the room as the stove is located. A fireplace with flue adjoining the stove chimney makes a good exit for bad air. (The following arrangement for ventilating flue is required in one western state: A circular sheet steel smoke flue passing up in center of ventilating shaft, foul-air exit, twenty inches square in the clear.)

Temperature.

a. Every school should have a thermometer, and the temperature in cold weather should be kept between 66° and 68° Fahrenheit.

b. Factors determining good ventilation:

Temperature
Humidity
Air movement

(1) Temperature range—66° to 68° Fahrenheit in winter.

(2) Humidity range—40° to 60° Fahrenheit. The hygrometer is the instrument for measuring the quantity of moisture in the atmosphere.

(3) Motion—Enough to afford stimulation of the skin and break up the individual's "aerial blanket." Stagnant air is uncomfortable and unwholesome even when it is pure. During the sultry summer days when no breath of air is stirring, the lack of breeze permits the envelope of air immediately surrounding the body to become overcharged with heat and moisture, which brings on the characteristic symptoms caused by bad ventilation: headache, mental dullness, vertigo, and faintness. These are due

to discomfort of the skin and possibly the lungs. The real object is not a schoolroom ventilation, but body ventilation. It is, therefore, a problem as closely associated with the home as with the school.

"If windows must be closed to assist the operation of a ventilating system they should be opened top and bottom at least once an hour to secure a thorough airing out of the schoolroom." —Burk, *Health and the School*, page 48.

"The air of the ordinary indoor school can also be made much more hygienic by frequent flushing through opened windows. The latter precaution, in fact, is a necessary adjunct to any system of ventilation."—Terman, *The Hygiene of the School Child*, page 165.

LESSON VI

Physiological effects of temperature and humidity

A very interesting demonstration was made by Paul, Brown-Sequard, and Hill, showing the physiological effects of the external influences of temperature and humidity. Read to the pupils the demonstration:

One or more persons are inclosed in the [air-tight] cabinet, and the effects of various conditions of humidity, temperature, and air movement upon the inmates are noted.

Dr. Paul found that when the temperature of the cabinet was kept at sixty degrees, the experimenter could stay in the cage four and a half hours without noticeable symptoms, although long before the close of the experiment the carbon-dioxide content of the air in the cabinet was far higher, and

the oxygen content far lower, than is ever the case with the worst ventilated schoolroom. But at seventy-two degrees, only a few minutes were required to produce feelings of mental dullness, headache, vertigo, and faintness. Before long the body temperature rose three degrees. Then an electric fan was started and the symptoms almost immediately vanished.

Hill's experiments with air-tight cabinets proved that when the air was kept cool and in motion the subjects suffered no ill effects even when the proportion of carbon-dioxide was twenty times as great as it ever is in badly ventilated houses. At this point, the oxygen content was so low that candles would not burn and the inmates could not light their cigarettes with matches. When the temperature of the air was suddenly increased by means of an electric stove, the usual symptoms of rapid heart-beat, increased body temperature, and feelings of distress quickly made their appearance. Electric fans were then started and the passage of swift air currents over the body brought almost instant relief.

Hill also imprisoned guinea pigs for periods as long as fourteen weeks in tight cages where the proportion of carbon-dioxide was from fifteen to thirty times above the normal. The guinea pigs throve beautifully in spite of the "bad" air as long as their cages were kept cool, dry, and clean.

In other experiments Hill was able to prove that breathing the hot and vitiated air had nothing whatever to do with the symptoms. Persons who stood outside were able to breathe the vitiated air of the cabinet tubes without experiencing any ill effects. Conversely, when those inside were suffering extreme symptoms due to the overheated and stagnant air of the cabinet, they experienced no relief from breathing the pure, outside air through the tubes. Only the fans and the lower temperature brought relief. The explanation is as follows: If the air is not in motion, that next to the

body quickly becomes saturated and refuses to take up additional moisture. It acts as a "steam jacket" enveloping the body and causes languor and depression. The perspiration is not evaporated and, as the Germans say, the body is then not able to "unwarm" itself. The pulse is accelerated, more blood is sent to the skin and less to the viscera and brain. The blood vessels of the skin dilate, the blood pressure is lowered, and extra work is thrown upon the heart. When the dead air is set in motion by a fan, the steam jacket is dissipated, the sweat evaporates, the circulation becomes more normal, and we are refreshed.

Air currents and perceptible variations of temperature are the essence of good ventilation.[1] . . . . It is largely our prejudice against air currents and variable temperature which makes our indoor life so unhealthful. . . . .

Instead of fleeing from drafts, we should seek them. As long as we are healthy it is only the little draft which cools but a small part of the body that is injurious. The *remedy* for draft, therefore, is *more* draft coupled with the *healthy circulation* that comes from *sufficient exercise.*—TERMAN, *The Hygiene of the School Child*, page 158. Used by permission of and special arrangement with Houghton Mifflin Company.

LESSON VII

To the teacher:

The following extract explains the reason for presenting, in connection with the lessons on ventilation, a lesson on adenoids.

Effect of poor ventilation

Another of the serious evils of schoolroom air under artificial methods of ventilation and heating is deficient humidity.

[1] Italics ours.

When air of 30° F. at a relative humidity of 60 or 70 per cent is heated to 72°, the relative humidity is greatly lowered and the drying capacity of the air is increased enormously. On an average winter day the air of the "best ventilated" school may show a relative humidity of only 25 or 30 per cent; that is to say, it is as drying as the winds of the Sahara. Plants less hardy than the desert cactus shrivel and die in such an atmosphere. Why should we expect children to thrive in it?

So great is the drying capacity of warm air at this degree of humidity that it voraciously licks up every available particle of moisture, from the furniture, which promptly cracks and falls to pieces, and from the skin and throats of the children. All the mucous membranes exposed to such air become parched and unhealthy.

. . . . One important function of the nasal passages is to add moisture enough to the air in its passage to the lungs to raise it almost to the point of saturation. In the desiccated air of the furnace-heated or steam-heated school, this task becomes too great. Diseased conditions of the nose and throat result: catarrh becomes the rule; diphtheria, pneumonia, and tuberculosis are more easily contracted; and it is possible that adenoids and hypertrophied tonsils may sometimes be caused this way.

When the mucous membranes of the nose and throat are healthy, they produce a germicidal secretion which rids the incoming air of nearly all its bacteria. When changed in texture by air of deficient humidity, the membrane is no longer a "bulwark against disease," but a "host for the culture of germs." "It turns traitor to the body by giving aid and comfort to its enemies."

Another effect of this kiln-drying to which we subject children is to make them irritable and nervous. Self-control becomes more difficult. Outbreaks of temper are frequent.

Concentration is impossible.—TERMAN, *The Hygiene of the School Child.* Used by permission of and special arrangement with Houghton Mifflin Company.

Adenoids

Read to the pupils the following article on adenoids:

ADENOIDS. WHAT THEY ARE. HOW TO RECOGNIZE THEM. WHAT TO DO FOR THEM

Nature intends that we should breathe through the nose and has so arranged matters that the air is strained, warmed, and moistened as it passes through the nose. This is very important.

Unfortunately about 10 per cent of all children have adenoids which interfere with free breathing through the nose. So many serious results follow this condition that we should learn something about adenoids and their treatment.

What are adenoids? Adenoids are a lymphoid tissue tucked away up behind the palate and are therefore out of sight. When this adenoid tissue grows abnormally large it forms what are known as "adenoids." From the position of the adenoids it will readily be seen how easily they interfere with proper nasal breathing.

What adenoids do. One of the first results of the growth of adenoids is mouth breathing. When this condition develops, the air breathed in reaches the throat and lungs in an unpurified condition. Moreover, it is not sufficiently warmed or moistened. In a short time, therefore, such children begin to suffer from repeated colds, and show signs of beginning nasal catarrh. Unless proper treatment is now undertaken, the condition soon gets worse, and the child's nasal breathing becomes more and more obstructed.

Children who suffer from adenoids are unusually pale, often narrow-chested, and altogether are not as strong and robust as are normal children.

But this is by no means all of the harm done by adenoids. They affect the voice, disfigure facial expression, interfere with hearing, give rise to night terrors, open the way for serious invasions by disease germs, and, through the development of chronic nasal catarrh, may lead to loss of the sense of smell.

The alteration of the facial expression is often so great that the child looks stupid.

One of the chief disfigurements caused by adenoids is that of the jaws and teeth.

It will be noticed that the teeth of the upper jaw stick out and are not covered by the lip as they should be. In these cases the roof of the mouth, that is, the palate, is narrow and highly arched, and the two jaws do not come together as they do in normal persons. This condition is called "malocclusion." Usually, too, the teeth of the upper jaw are irregular and crowded. The malformation of the teeth thus produced by adenoids may lead in turn to other serious conditions, among them the chronic disease known as pyorrhea, various forms of root infection, and chronic indigestion.

How to recognize the condition. The presence of adenoids should be suspected if the child habitually sleeps with open mouth, snores a great deal, or has frequent strangling coughing spells. Sleeping with open mouth is one of the first signs and should, therefore, lead at once to a careful examination by a physician. Sometimes difficulty in hearing is one of the early symptoms. Therefore, in all cases of ear trouble an examination should be made for adenoids.

What to do. Whenever adenoids are large enough to give rise to any of the symptoms already described, they should be removed. This is especially the case in children under ten years of age, for it is probable that the condition will grow worse. The operation is a simple one and not dangerous.

Relief is immediate, and the health and strength of the child usually improve rapidly afterwards. It is wrong to delay having the operation done, for the presence of adenoids not only endangers the child's health, but a few months' delay may cause considerable malformation of the jaws, palate, nose, and face.—From *Keep Well Series No. 2.* United States Public Health Service.

LESSON VIII

Have the pupils write themes on the subject "Ventilation and Health."

References

Winslow, *Healthy Living*, Vol. II, pages 136–139. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Woods Hutchinson, *Community Hygiene*, chapter xvii and chapter xviii, page 143. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

SCHOOL SANITATION (*Continued*)

Suggestions that promote interest in personal health

Appoint a health committee of three or five pupils. Assign the subject "Milk as a Food." Have them assemble pictures and posters to place in the room. Have them study the subject and lead a class discussion. (They will be able to obtain valuable literature from the National Dairy Council, 910 South Michigan Avenue, Chicago, Illinois.) If possible, visit a dairy. Include the habit of drinking milk in checking the health chore folders. The last class period in each month is given over to the activities of this health committee.

LESSONS I AND II

Weigh the pupils. Have each pupil record his weight on the classroom weight chart. The Height-Weight-Age Tables, pages 487 and 488, give the average weights of boys and girls. Read to the pupils the article on "Malnutrition," page 492. It will help them determine reasons for losses and gains in weight. Present the health chore folders and have the pupils check the chores you wish them to observe.

LESSON III

Have the pupils read and discuss the themes on "Ventilation and Health."

LESSON IV

In connection with the following outline, assign lessons on school sanitation to be studied from a hygiene textbook.

Drinking facilities

Sanitary drinking fountains:

1. Should throw a vertical stream of water and be so arranged that the child's mouth does not come in contact with the source of supply.
2. Rural schools that are unable to secure fountains should use paper cups and a covered jar with a spigot.
3. Individual glasses or cups are unsatisfactory, unhygienic, and impractical when dipped in an open bucket or not cared for properly. An open bucket should not be tolerated.
4. There are many types of so-called sanitary fountains on the market. Careful investigation should be made before making a selection.

In connection with this subject have the pupils study and discuss the source of the water supply of the community.

LESSON V

Have the pupils inspect the conditions of their school building. Consider the drinking facilities, the method of sweeping and of settling dust, the facilities for washing and drying the hands, the facilities for fire escapes, and all else pertaining to sanitation and safety.

If improvement is necessary, how may they as a class help bring about an improved condition?

LESSONS VI AND VII

Have the pupils write essays on "A School That I Should Like to Attend." Read and discuss these essays.

LESSON VIII

This class period should be in charge of the health committee. As suggested at the beginning of the month, its members should lead a class discussion on milk.

References

Ayres, Williams, and Wood, *Healthful Schools.* Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Pamphlet: "Sanitary Schoolhouses, Legal Requirements in Indiana and Ohio," *United States Bureau of Education Bulletin 52, 1913.* Superintendent of Documents, Washington, D. C.

NOVEMBER

LIGHTING

Suggestions that promote interest in personal health

Appoint a new health committee. Assign the subject "Food." Have the committee assemble pictures and posters to place in the room. Have them plan balanced menus and, if possible, prepare a table containing the right kinds of food. Read the article on "Food," page 514, to the class. The committee should lead the class discussion. Include the food chores in checking the chore folders.

LESSONS I AND II

Weigh the pupils. Have each pupil record his weight on the classroom weight chart and give probable reasons for individual loss or gain.

LESSON III

To the teacher:

In connection with the subject matter which we are offering, have the pupils study the subject of school lighting from a hygiene textbook or from reference books.

School lighting as a factor in saving sight[1]

Eyesight conservation of school children is a problem of great national importance. Improper lighting is one of the

[1] The material in Lessons III to VI is a quotation from *Eye Sight Conservation Bulletin No. 6.* Published by the Eye Sight Conservation Council of America, Times Building, New York City.

direct causes of eyestrain, which in turn produces such uncomfortable and harmful results as headache, unnatural weariness after study, bloodshot eyes, crusty lids, etc. Every effort should be made so to improve the lighting facilities of our schools that all children will enjoy equal advantages of normal physical and mental development. It is highly essential that the lighting of school buildings (both natural and artificial) be in accordance with approved standards. No child should be required to face the source of light, whether this be a window or a gas or electric light. Eyestrain will frequently result from such harmful practices, but it may be avoided by shading windows and by placing the lamps well above the direct line of vision and properly shading them.

The demand for good school lighting. Recently there have been greater demands in schools not only for improved daylight facilities but for modern systems of artificial lighting. Schoolhouse construction has not kept pace with the increase in the school population and the extension of the curriculum. As a result many schools have been forced to conduct two sessions a day in order to take care of classes. In the winter months especially, this means that artificial light will be used several hours each day. Also school buildings are being utilized more and more extensively for public gatherings, entertainments, and night-school purposes. On cloudy days and in classrooms where it is not possible to secure sufficient window area, artificial illumination should be available to supplement the daylight. It is necessary as a safety measure in dark corridors, cloakrooms, and stairways.

There are finally to be considered the improved standards of lighting established as a result of the rapid development in the art of lighting in recent years. Systems and facilities that were considered adequate a few years ago are now regarded as obsolete even though the equipment may be in good condition.

Business interests have found it worth while to provide lighting installations according to the latest approved standard for industrial workers; it is certainly even more important to give consideration to the workrooms of children.

When new school buildings are being constructed, adequate natural and artificial light can be provided with very little added expense. Wonderful improvements can be made in old buildings by properly finishing the walls and ceilings, by the installation of shades at windows, by the proper arrangement of desks, and by equipping the present artificial lighting system with correctly designed reflecting shades and diffusing glassware. The low cost of such necessary changes warrants their careful consideration by school authorities.

The advantages of good lighting. The advantages of good lighting to school children may be briefly summarized as follows:

1. A reduction of eyestrain and the possible elimination of the resulting effects, laziness, lack of interest, faulty digestion, nervousness, headaches, backwardness, wrong posture, and the like
2. Greater capacity to work and to concentrate upon the subject in hand
3. Greater accuracy and neatness in work
4. More cheerful surroundings
5. Greater comfort and contentment

Condition of school lighting. Surveys of the physical equipment of school systems made in different parts of the country show almost invariably that the natural lighting facilities need improving and adequate artificial illumination is almost entirely lacking. The principal reason for this condition is that many school buildings were built years ago when the importance and value of proper lighting were not appreciated, and the science and art of lighting were very imperfect. This

is particularly true in rural school districts, but exists to a surprising extent in many cities. Even some of our more modern school buildings have been planned without giving proper consideration to the arrangement of windows, the amount of window area, or the installation of adequate artificial lighting.

The code of lighting school buildings. . . . . It is incumbent upon everyone interested in the welfare of children to know what is considered good lighting, how it aids the eye, and how it can be secured. Correct lighting should be understood by parents, pupils, and teachers. School authorities and state officials should consider it their responsibility to provide the best lighting in our schools that science and industry can offer.

The provisions for correct school lighting as set forth in this pamphlet are based upon the requirements of the revised "Code of Lighting School Buildings."

The development of the art of lighting. There are two distinct kinds of lighting in regular use by all civilized people. The first and most important is the light which comes to us from the sun. This is spoken of as natural lighting. The other is that devised by man to supplement the light of the sun and is called artificial lighting. Formerly people depended almost entirely upon the light from the sun. All work that required good light was done in the daytime. Lamps have been used for ages, but the older forms gave forth very little light. In fact, while lighting is one of the oldest arts it has been one of the slowest to develop. There has been a greater development in artificial lighting in the last fifty years than there was in all the ages before, since the time when a flaming fire was the only source of light other than the sun. Within recent years there have been constantly increasing demands for artificial light that will take the place of sunlight. It

would be difficult to conceive of not having light at night as well as during the day in our homes, our schools, public buildings, stores, and factories. Even though daylight is the most perfect form of light and artificial light has been wonderfully improved, care must be taken in the use of either, for eyestrain may be caused by faulty use of daylight just as it may be from wrong application of artificial light.

Elements of lighting. Before discussing natural and artificial lighting separately, there are some principles applying to both which should be understood. Eyestrain may be caused by either daylight or artificial light. Either may be too bright or improperly directed, thus causing glare, or the illumination produced may be insufficient. The three important elements of lighting are referred to as:

1. Amount of illumination
2. Distribution of light
3. Diffusion of light

Amount of illumination. In order that an object may be seen satisfactorily, a certain minimum amount of light must fall upon it, or, in other words, it must have adequate illumination. This applies to all objects which are to be looked at, such as a book, a blackboard, or a map on the wall. This effect of light upon a surface is spoken of quantitatively as "intensity of illumination" or simply as "illumination." It is measured in foot-candles.

[The foot-candle is a unit of measurement for the intensity of illumination. It is approximately the lighting effect produced by the light of a candle upon a surface one foot from the candle or of four candles two feet away or of nine candles three feet away. For a given distance away the illumination is proportional to the number of candles.]

As a result of the light falling upon a surface it has a certain brightness. Too much brightness or too great contrast is said to cause "glare." Light sources also may have too much brightness, though here it is due to their own light-giving quality. If the surface illuminated is white or very light colored and much light falls upon it, as from the sun, it may be so bright as to be painful to look upon. In the case of artificial light, however, there is no danger of having too much illumination upon a working surface, though there may be too much contrast between such a surface and the surrounding dark background.

LESSON IV

School lighting (*continued*)

Distribution of light. An even intensity of illumination is secured by a careful distribution; that is, by so arranging the light sources that nearly the same amount of light is secured over each portion of wide areas. Great care must be taken in choosing the right number of units and so placing them that approximately uniform lighting is obtained in all parts of a room. There should be no sharp shadows and the light should not shine into the eyes.

Diffusion of light. Probably the most difficult problem which confronts lighting experts is the proper diffusion of light, i. e., breaking up the direct rays of light so that glare from the light source or from reflecting surfaces is avoided. Proper diffusion also means the softening of shadows and securing the maximum light on the work while at the same time controlling the brightness of the light source. At windows diffusion is secured by shades and various other devices; on lamps, by shades or globes.

Glare. Glare may be defined as any brightness within the field of vision of such a character as to cause discomfort,

annoyance, interference with vision, or eye fatigue. It is one of the most common and serious faults of lighting installations.

Glare is objectionable because:

1. It tends to injure the eyes, and to disturb the nervous system.
2. It causes discomfort and fatigue and thus reduces the efficiency of the student.
3. It interferes with good vision and in many places (stairways, shops, passages to exits, etc.) increases the accident risk.

Design of school buildings. We are dependent upon the light from the sky for all our natural lighting, and, since it is superior to any form of artificial light, every means should be provided whereby it may be utilized as much as possible. Windows and skylights are the direct means by which daylight is admitted to the classroom. The securing of an adequate amount, therefore, depends upon the design of the building. The architect who plans the building is responsible for this. He should design the school building so that each room will have windows of sufficient size and number. Furthermore, the windows must be properly located and the rooms must be of suitable proportions. It is even important to consider the location of the building with respect to other buildings.

Systems of natural lighting. The two most common arrangements of the windows for providing natural illumination in school rooms are:

1. *Unilateral lighting* is secured when windows are located entirely on one side of a room.
2. *Bilateral lighting* is secured when windows are placed on two sides of a room.

One of the fundamental rules for proper lighting of desks from windows in the walls is to have the dominant light come

from the left side. For typical conditions, authorities on daylighting advocate unilateral lighting from the left side. Where this is insufficient, owing to the width of the room, windows at the left and rear are usually preferable to those on both the left and right sides of the room, except in unusually wide rooms. This is because of the cross shadows created by light sources on opposite sides.

For rooms of unusual width, such as auditoriums, daylighting may be provided from windows on opposite sides. Natural lighting from overhead sources, although sometimes used for assembly rooms, auditoriums, and libraries with relatively high ceilings, has ordinarily little application in classrooms. When overhead sources of natural illumination are used, the light should come from a north skylight or sawtooth roof construction and be so located as to avoid direct sunlight.

Size of classrooms. The width of a classroom should be governed by the number and location of windows. The room should be so designed that no work space is more distant from the window than twice the height of the top of the window from the floor. Much careful study has been given to the dimensions of classrooms, and in the code the size of classroom recommended is 28 feet to 32 feet long by 22 feet to 24 feet wide with a ceiling 12 feet to 14 feet in height.

Arrangement of desks. The sky as seen through a window or skylight is a source of glare, and for this reason the desks should be arranged so that no pupil is required to face the windows or skylights.

Windows. In order to have a well-lighted schoolroom the glass area of windows should not be less than one-fifth of the floor area. The most effective light comes from the upper portion of a window. The top of the glass of windows should not be more than 6 inches from the ceiling and the sills should usually be from three to four feet above the floor.

The lighting value of a window depends upon:

1. The brightness of the sky
2. The amount of sky that is visible through the window
3. The surroundings outside the windows
4. The size of the room (the area to be lighted)

These factors should be taken into consideration when choosing the site for new buildings. Trees and adjacent buildings may seriously interfere with the natural lighting.

Courtesy of Eye Sight Conservation Council of America

FIG. 38. INTERIOR VIEW OF A CLASSROOM SHOWING EXCELLENT ARRANGEMENT OF WINDOWS

Note the double shade rollers placed at middle of windows which permit either the upper or lower part of the window to be shaded independently

Window shades. It is necessary during school hours to control and regulate the amount of direct sunlight by means of

shades. There are a number of arrangements of shades and shutters that have proved satisfactory, such as the following.

Courtesy of Eye Sight Conservation Council of America

FIG. 39. POOR DAYLIGHTING: BADLY PLACED WINDOW OPENING; BLACKBOARDS LOCATED BETWEEN WINDOWS

Note: A better arrangement would be to have the four windows on one side and none in the rear.

1. Two shades at each window with the rollers at the middle of the window so that one shade unrolls upwards and the other downwards.
2. Two shades, both unrolling upwards, one at the middle and the other at the bottom of the window.
3. A single shade with a device which permits the roller to be moved to any position.
4. A translucent shade with the roller at the top and an opaque shade with the roller at the bottom of the window.

A single shade with roller at the top of the window has the disadvantage of excluding light from that portion of the window which is most effective in lighting the parts of the rooms farthest from the windows. In addition it interferes considerably with ventilation.

Light tan or light buff is a satisfactory color for shades. Suitable material of such colors allows considerable light to pass through, at the same time diffusing it. The shade should be wide enough to cover the entire window and to extend over each side of the frame a sufficient amount to prevent strips of direct light at the edges.

LESSON V

School lighting (*continued*)

Light courts. Where the light from windows is affected by outside walls that are opposite or near by, the interior illumination of rooms may be greatly increased by painting these walls a light color. Care should be taken to avoid glare, and for that reason glossy white should not be used. In instances where opposite walls are close to the windows, the same color as that of the inside walls may be used to avoid contrast.

Requirements for artificial lighting. The design of an adequate and suitable artificial lighting system for school buildings requires the careful consideration of scientifically trained lighting experts, who have devoted years of study to the practical application of the principles of modern illumination. It is not possible in this brief sketch to discuss in detail the observations and calculations that must be made in order to design a system that is scientifically correct. On the other hand, it is possible to understand some of the more important principles which are recognized as fundamental requirements for good artificial lighting.

These general requirements may be briefly stated as follows:

1. The required intensity of illumination should be provided for every work space and every room according to the use to be made of it.
2. The lighting should be such as to avoid harmful glare, objectionable shadows, and extreme contrasts.
3. Lamps, reflectors, or other suitable accessories should be installed with regard to mounting height, location, and spacing so as to secure an even distribution of artificial light over the work space.
4. The system should be operated from a source of supply that will insure continuity of service and steadiness of light.
5. Adequate maintenance of the entire system should be provided so that maximum efficiency is always secured. This includes cleaning and the replacement of burnt-out lamps or gas mantles.

Artificial lighting systems. It is difficult to classify artificial lighting systems because of the many combinations and types which are available. In general there are three broad classes, but it must be understood that these have no definite boundary lines, but merge into each other. These systems are:

1. Direct lighting
2. Indirect lighting
3. Semi-indirect lighting

A direct lighting unit throws most of the light from the lamp directly upon the work space either by means of a reflector with an open bottom or through various kinds of diffusing glassware.

With a totally indirect lighting unit the light from the lamp is directed upwards by an opaque reflector, so that it reaches the floor only after reflection from the ceiling or walls.

Between these two extremes there are many combinations of direct and indirect lighting units which throw a part of the light to the ceiling and are usually classified as semi-indirect.

Courtesy of Eye Sight Conservation Council of America

FIG. 40. BAD LIGHTING

The luminaires are hung too low and the light-sources are not adequately shaded. Note that the glossy varnish surfaces add to the glare.

There is a wide choice of units which are suitable for school lighting provided they are properly selected and properly installed. Shades must be made of good diffusing glassware so that, without undue absorption, they will soften the shadows, adequately distribute the light, and eliminate glare. Walls and ceilings must be properly finished and tinted. Finally, the equipment must be kept clean and in good repair.

The design of a lighting system to meet any school lighting condition should conform to certain fundamental principles. Calculations must be made to determine the quantity of

illumination required, the number and the size of lamps, the height and spacing of the lighting units, the type of inclosing or reflecting devices, etc. To do this work intelligently there is required technical training and practical experience in the solution of lighting problems. Rules and requirements for correct school lighting and the method of designing a lighting system are given in the "Code of Lighting School Buildings." The code is intended as a guide for architects

Courtesy of Eye Sight Conservation Council of America

FIG. 41. GOOD CENTRAL LIGHTING WITH INCLOSED LUMINAIRES

and school authorities in formulating rules and regulations and in planning better lighting conditions.

Illumination required. Since the eyes of school children are immature and more susceptible to injury than the eyes

of adults, high standards of illumination are required in school buildings. There is no danger from too much artificial light provided always the light is properly diffused and controlled, for daylight intensities are many times higher than the present highest practical intensities of artificial illumination. Experience has shown that there are certain minimum intensities of illumination which should be observed for eyesight conservation and higher intensities are recommended as advantageous for best vision. Both sets of values are given in the code for the different working conditions found in classrooms, corridors, auditoriums, laboratories, workshops, libraries, etc. In classrooms, for instance, the intensity should not be less than 5 foot-candles, while the "recommended" intensity is twice this amount, or 10 foot-candles.

Measurement of illumination. Every city school system should be provided with a device for measuring illumination. At present the simplest and cheapest of these is the foot-candle meter. This instrument is for use in measuring the amount of illumination received on any working surface. It is easily operated and is sufficiently accurate for all ordinary purposes. No computations are necessary inasmuch as the intensities in "foot-candles" can be read directly. It is possible for anyone with this instrument to determine the "foot-candles" on any surface, and with a knowledge of the required intensity of illumination as given in the tables it is easily determined whether the lighting installation is giving a sufficient amount of light.

LESSON VI

School lighting (*continued*)

Distribution of artificial light. Another important consideration is that light from artificial sources should be distributed as evenly as possible over the entire working space, which in the case of classrooms is the tops of the desks. The

distribution of light should be governed by the simple rule that in no part of the space being lighted should the intensity of illumination be less than one-fourth that at the brightest point. In other words, at no point where the intensity of illumination is the highest should it be more than four times the value where it is the least. The foot-candle meter is invaluable for determining this ratio.

Color and finish of interior. The color and finish of walls and ceilings are important in both natural and artificial lighting. Glossy paint causes glare and therefore should not be used on side walls. Matte surfaces are preferred. Light warm gray, light buff, dark cream, and grayish green are excellent colors for walls; white and light cream for ceilings and friezes. Desk tops and other woodwork should be dull finished to avoid reflection and glare. Glass should not be used for desk tops.

Blackboards. There are a few simple rules with respect to blackboards.

1. They should have a dull surface to prevent reflection.
2. They should not be placed next to windows. When blackboards so placed are in use, the eyes must face the light and the blackboard will probably not be well illuminated.
3. The walls surrounding blackboards should not be white or very light colored, as excessive contrast is tiring to the eyes.
4. Experience has shown that black slate is the most satisfactory material for blackboards.
5. Blackboards should be properly lighted and in such a way as to avoid glare.
6. They should be of the proper height from the floor as determined by the average height of the pupils using them. They should not extend to a height above

that which can be reached, for an excess of blackboard area only adds to the somberness of the room and unnecessarily absorbs light.

7. Glare may be avoided by tilting the blackboards away from the wall at the top edge.

Inspection and maintenance. If satisfactory results are to be obtained from any lighting system, there must be a systematic inspection of the equipment. The depreciation in the amount of light due to dirty windows, dust and dirt on reflectors, blackened lamps, and broken mantles may be so gradual that it is barely noticeable. Such heedless neglect greatly reduces the effectiveness of any installation. Windows should be kept clean by frequent washing. Walls and ceilings should be cleaned frequently and redecorated when necessary. Reflectors and globes should be washed thoroughly at least once in every two months. Any burnt-out or broken lamps or mantles should be replaced immediately. Some person should be held responsible for the maintenance of the entire equipment, and inspection should be carried out according to a definite schedule. By using the foot-candle meter an occasional check can be made to see if the equipment is being maintained properly.

Use of light and care of the eyes. Even though adequate illumination of schoolrooms is provided, harmful results are likely to follow unless the light is used properly. The intelligent use of light is one of the most important ways of conserving the eyesight of school children. Parents and teachers should train children to take care of their eyes. Certain precautions are, therefore, suggested in these concluding paragraphs.

Brightness of light. Light should be judged by the effect produced on the working plane and not by the brightness of the lamp. Just because a lamp appears bright is no indication

that it is giving sufficient light where such light is required. It may be giving light in the wrong place and not enough where needed. On the other hand, a well-shaded lamp may look dim because it is well shaded, and still be giving first-class light for working purposes. Both inadequate illumination and glaring light make the eyes tired and tend to weaken them. Therefore the light should be that which is from all points of view agreeable to the eyes.

Unsteady light. The light should be steady. An unpleasant sensation is produced in going from a darkened room to bright sunlight. A flickering light produces the same annoying effect to a lesser extent. The eye in endeavoring to adjust itself to suit the light becomes fatigued owing to the rapid and repeated contraction and dilation of the pupil. The muscles which govern the action of the iris become tired and react on the nerves to cause discomfort and pain. Eyestrain may easily result.

Unshaded light. The eyes should not be exposed to a brilliant unshaded light source. Excessive light overstimulates the retina and produces a blinding effect similar to that produced by looking at the sun. Eyestrain and fatigue are produced by the contraction of the iris in making the pupil as small as possible to shut out bright light.

Posture. In writing it is best to have the light come from the left side and above so as to avoid shadows from the hand that holds the pencil or pen. A person should not face a light or window when reading or working. The position of the light should be far enough behind to keep out of the eyes the direct reflection from the paper or from the surface of the work space. The eyes should not be brought to the work but the work to the eyes. The proper reading distance is 12 to 15 inches from the eye. A person should sit erect in a natural position when reading or writing and should not

bend or "hunch" over the desk. Eyestrain often leads to faulty posture. If it is impossible to see properly when sitting in a natural position, there is probably something wrong with the eyes and they should be examined by a competent specialist.

Paper and type. School books should be well printed on good paper. The type should be large and distinct and properly spaced. The most comfortable combination is black letters on dull white paper. Fine print and blurred letters should be avoided. Shiny paper produces glare and should not be used either in books or for writing. Books and papers should be kept clean—soiled pages are hard to read. Also poor penmanship is just as trying to the eyes as poor print or fine type.

Resting the eyes. The eyes should be rested when tired. An occasional few minutes' rest will be very helpful, especially if the eyes are fatigued because of faulty illumination, by doing close work, or by using them for long periods. The frequency and length of rest periods should be increased in proportion to the task imposed upon the eyes.

Eye protection. The eyes should be protected from bright lights, glare, dust, and wind. When something has got into an eye, it should be removed by some one who can give aid without injury. The delicate lining of the eyelids may be easily infected. For this reason a common towel should not be used.

Eyestrain and defective eyes. If children complain of headaches and dizziness, or become unnaturally fatigued after close work, the trouble may be with their eyes. The eyesight of school children should be tested at least once each year to discover if eye defects or diseases exist. Those who are found to be seriously handicapped by defective vision should have the defects corrected by properly prescribed glasses,

which should be worn as advised and not carried in pockets or kept in drawers of desks; those having diseases of the eye should receive proper attention.

Good eyesight. Good eyesight is a most precious possession. The eyes should not be misused but should be guarded and saved. Proper care should be taken of them at all times by demanding good lighting everywhere, by using light properly, by having eye defects corrected, by having diseased conditions treated, and at all times protecting them from injury and abuse.

LESSON VII

Tell the following story:

A Schoolroom Scene

"Tom, you may read next." Tom, an overgrown boy two or three years older than the other children in his grade, rose awkwardly to his feet. The teacher turned to her visitor with a shrug which expressed her utter despair of Tom and his ability to read. She said in a whisper, "I think he's just plain dumb. Tom has been in this grade now for two years and he can't read a bit better now than when he came in. Listen to him." Tom was bent away over his book, peering at the print, studying out the words one by one. The teacher interrupted his hesitation with a sharp, "That will do, sit down!"

Then she turned to her visitor with resignation in her entire bearing. "What would you do with a hopeless boy like that?"

"Have his eyes examined," the answer came.

"Why, I never thought of that!" gasped the teacher. And then with the thought came various recollections of Tom as he sat in his seat crushed down over his book, and of her

sharp admonitions to sit up straight; of his utter failure to copy problems written on the board, of his inability to learn, which came, not from the lack of trying, but from what she had termed "dumbness."

The teacher visited Tom's mother and father. After considerable persuasion they at last consented to have the boy's eyes examined. He was found to be suffering from astigmatism and nearsightedness which caused the words on the printed page to double and dance before his eyes. A pair of glasses corrected the difficulty and Tom returned to school able to see as well as any other boy.

Careful examination of the eyes of children in our public schools today reveals the fact that many of them are suffering from defective eyes or from eyestrain. Thousands of children drop out of school annually because defective vision will not permit them to keep pace with their fellows, and these thousands go out to join the vast army of "misfits." They find it hard to concentrate their attention, their heads tire quickly when they try to think, they are nervous and irritable. All this impairs their efficiency, sending their earning power far below what it ought to be.

The correction of defective vision in such children will benefit all concerned. It will put many a child on his feet and assist him on the road to success. It will give him a fair chance to make something of himself in life, since he will attack his school work with renewed vigor and ambition.

It will materially lower the per capita cost of education, as all teachers know that much time is wasted in repeating and drilling for the sake of the defective child—the whole class being thus retarded.

It will greatly increase the efficiency of the child himself and thus make him of more value to himself and to his community.

Don't neglect your plain duty to your children. Let the child's necessity be the guide. Give him every chance to become a happy, prosperous citizen, even though it is necessary for him to wear glasses.—Courtesy of the Eye Sight Conservation Council of America.

Have the pupils draw the picture of a room or, if time permits, build a miniature room. Figure the window space required for correct illumination and indicate the proper distribution of light through the windows. Study the lighting conditions of your own schoolroom. Make the necessary corrections as far as it is possible to do so.

LESSON VIII

This class period should be in charge of the health committee on food.

References

O'Shea and Kellogg, *Health and Cleanliness*, chapter vi. Macmillan Company, 60 Fifth Avenue, New York.

National Committee for the Prevention of Blindness, 130 East 22d Street, New York.

The Eye Sight Conservation Council of America, Times Building, New York.

DECEMBER

HOME SANITATION

Suggestions that promote interest in personal health

Appoint a new health committee. Assign the subject "Teeth." Have the members assemble pictures and posters on the care of teeth to place in the schoolroom. Have them study the subject and lead a class discussion. Invite some pupils from the lower grades to demonstrate "How I Brush My Teeth." Include, in checking the health chore folders, the chore on brushing the teeth.

LESSONS I AND II

Weigh the pupils. Have each pupil record his weight on the classroom weight chart and give probable reasons for loss or gain.

LESSON III

During this month assign lessons on home sanitation to be studied from a hygiene textbook. In connection with the textbook material develop the following points:

Location:

1. Advantages of living in the city
2. Advantages of living in the country
3. Effects of air, dust, and noise
4. Discuss the selection of building sites for homes:
   a. On high ground
   b. On low ground

5. Discuss the advantages of different frontages:
   a. North
   b. South
   c. East
   d. West
6. Discuss advantages and disadvantages of corner sites

LESSON IV

Construction:

1. The relative values of frame, brick, and stone construction
2. Types of houses and their advantages and disadvantages:
   a. Apartment
   b. Duplex
   c. Single
3. The value of fireproof construction
4. Cellar should be dry, with maximum amount of daylight

Housing and health:

How to make a house safe for occupancy:

1. Scrub the floors, woodwork, and all exposed surfaces with hot soapsuds
2. Sun and air the house thoroughly
3. Repaint and repair if possible

Sanitarians are agreed that fumigation by burning sulphur will kill insects, bedbugs, and roaches, but has no effect whatever upon disease bacteria. It is the consensus of opinion that formaldehyde is probably the best chemical disinfectant, although great stress is placed upon the efficiency of hot water, soap, sunlight, and air.

LESSON V

Sanitation of interior of home

Assign a lesson on the sanitation of the interior of the home to be studied from a textbook. In connection with the textbook material develop the following points:

Sanitary kitchens:

1. Importance of general cleanliness in:
   - *a.* Plumbing
   - *b.* Floors and woodwork
   - *c.* Windows
   - *d.* Utensils
   - *e.* Tea towels and hand towels
2. Importance of having windows and doors screened against flies; of having food covered; and of having a maximum amount of air and light provided for
3. Why clothing should not be dried in the kitchen
4. Why garbage should not stand uncovered

Dining room:

1. Discuss the importance of general cleanliness:
   - *a.* Floors and furniture should be free from dust.
   - *b.* Windows should be clean.
   - *c.* Linens should be clean.
2. Windows should be screened against flies.
3. Room should have maximum amount of sunlight.
4. Discuss the following points:
   - *a.* Value of regular meals
   - *b.* Mealtime—a social gathering
   - *c.* Cheerfulness and digestion
   - *d.* Posture at table
   - *e.* Value of cleanliness, daintiness, and order in arranging the table

LESSON VI

Sanitation of interior of home (*continued*)

Sleeping rooms:

1. Importance of general cleanliness and tidiness:
   - *a.* Freedom from dust
   - *b.* Cleanliness of windows
   - *c.* Cleanliness of bedding
2. Maximum amount of sunlight and air
3. Importance of ventilation—day and night
4. Importance of sleeping alone
5. Effect of high pillow on posture
6. Importance of airing the bedclothing each morning
7. Importance of airing the room during the day

Care of bathrooms:

1. Importance of general cleanliness:
   - *a.* In plumbing
   - *b.* In floors
   - *c.* In linens
2. The room should have a maximum amount of sunlight and air.
3. Toothbrushes should never be kept together in one glass, but should be hung on a separate nail in the sunlight if possible.
4. Teeth should be brushed over the toilet, not over the wash bowl.
5. Each individual should have a towel and wash cloth.

LESSON VII

Sanitation of interior of home (*continued*)

Care of the cellar:

1. Fire hazard:
   - *a.* Rubbish
   - *b.* Oil-soaked waste
   - *c.* Old lumber
   - *d.* Hot ashes
2. Importance of good ventilation and drainage
3. Dampness—a health menace
4. Accident prevention—light
5. Staircase in good condition
6. Necessity for removing spoiled fruit and vegetables
7. Use of lime and whitewash

LESSON VIII

This class period should be in charge of the health committee. As suggested at the beginning of the month, its members should lead a class discussion on the care of the teeth. The demonstration from a lower grade may also be given at this time.

Read to the pupils "A Knight without Reproach," page 533.

References:

Andress, *Health Education*, chapter ii, page 14. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Hoag, *Health Studies*, pages 115–129. D. C. Heath & Company, 50 Beacon Street, Boston, Massachusetts.

Woods Hutchinson, *Community Hygiene*. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

HOME SANITATION (*Continued*)

Suggestions that promote interest in personal health

Appoint a new health committee. Assign the subject "Fresh Air and Exercise." Have the members obtain pictures and posters to place in the schoolroom. Have

FIG. 42. A BEAUTIFUL BACK-YARD GARDEN

These results were accomplished with simple garden flowers and shrubs

the committee study the subject and lead a class discussion. They should suggest new games to be played

indoors and out; they should appoint a monitor to watch the thermometer; the monitor should not permit it to register above 69°. Include the chore of fresh air and exercise in checking the chore folder.

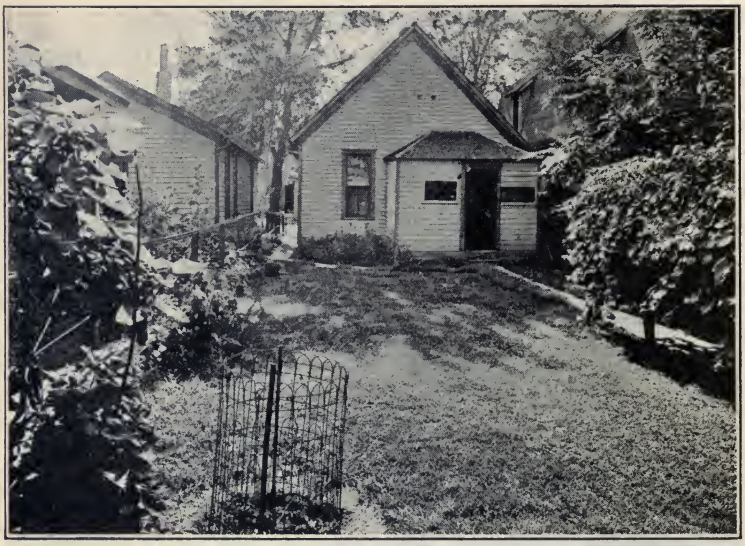


FIG. 43. EVEN THOUGH THE SURROUNDINGS ARE VERY SIMPLE, THIS BACK YARD IS NEAT AND ATTRACTIVE

LESSONS I AND II

Weigh the pupils. Have each pupil record his weight on the classroom weight chart and give probable reasons for loss or gain.

LESSON III

Care of back yards and alleys

Assign a lesson on the care of back yards and alleys to be studied from a hygiene textbook.

In addition to the textbook subject matter, have the pupils make a survey of the back yards and the alley in the block in which they live. They should note especially the facilities for handling garbage and for the disposal of papers and rubbish.

Back yards should be kept neat and attractive; they need not be places in which rubbish and unsightly objects are allowed to collect. The pictures on pages

FIG. 44. THIS YARD ADJOINS THE ONE SHOWN IN FIG. 43. SUCH CARELESSNESS SEEMS INEXCUSABLE

395–397 illustrate three types of back yards. The first has been made a delightful spot through the planting of garden flowers and shrubs; the second yard is much plainer, but it is clean and orderly and shows that a

back yard may be made attractive even though its surroundings be very simple; the third picture shows a back yard which is located in the same block with the second one illustrated. Should the neighbors have to tolerate such a careless condition?

"Filth in some one else's back yard may be as great a source of danger to us as though it were on our own ground."[1]

LESSONS IV AND V

Model homes

Have each pupil obtain the picture of a house that appeals to him as a model home. This picture may be clipped from a magazine or it may be a kodak picture. Have him write the reasons for his selection from the standpoint of health and sanitation. He should discuss its advantages in site, in location, in construction, material, and other points. Some consideration should be given the approximate cost and upkeep; a pupil should not be encouraged to select a home too far beyond his present habitation. Have the essays read in class and permit the pupils to choose the home which they believe to be the most wisely selected.

LESSONS VI, VII, VIII

Divide the class into two teams. Have each team choose three pupils who will debate on the subject: "*Resolved*, That it is more advantageous from a health standpoint to live in the country than in the city." Have each team assist its debaters in collecting material.

[1] O'Shea and Kellogg, *Health and Cleanliness.*

References:

Broadhurst, *Home and Community Hygiene.* J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

O'Shea and Kellogg, *Health and Cleanliness*, chapters ii and iii. Macmillan Company, 60 Fifth Avenue, New York.

Woods Hutchinson, *Community Hygiene*, chapter xxxi. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

FEBRUARY

HYGIENE OF FOOD

Suggestions that promote interest in personal health

Appoint a new health committee. Assign the subject "Posture." Have the committee assemble pictures and posters on posture to be placed in the schoolroom. (Very valuable posters and literature may be obtained from the American Posture League, 1 Madison Avenue, New York.) The committee should study the subject and lead a class discussion. They should work toward general improvements in the postures of the pupils. (See Figure 63, page 549.) Include the chore of maintaining correct posture in checking the chore folder.

LESSONS I AND II

Weigh the pupils. Have each pupil record his weight on the classroom weight chart and give probable reasons for loss or gain.

LESSON III

Pure food

Assign a lesson on pure food to be studied from a hygiene textbook. In connection with the textbook material, discuss the following points:

By impure foods we mean adulterated foods or foods that are made up of cheaper substances with a misleading label. (For example, canned meats, labeled as "chicken," have been sold which were found to be

made up largely of cornmeal; jams labeled as raspberry have been found to be made of highly colored and artificially flavored gelatine filled with alfalfa seeds; chocolate candies have been filled with sweetened tallow or grease.)

City, state, and national governments are doing many things to prevent the sale of impure foods.

Discuss the national pure food law passed in 1906. It requires that when preservatives and coloring matter are used in foods, the fact shall be stated on the label. It requires that food and drugs shall not be adulterated.

Note the pure food labels on canned foods. What protection do they offer you?

LESSON IV

Clean food:

Assign a lesson on the care of foods to be studied from a hygiene textbook. In connection with the textbook material discuss the following points:

1. Clean food is more important than pure food. Why?
2. Give examples of groups of people who have all eaten unclean fruit or other food, thereby causing many to be ill of typhoid or other diseases.
3. Tell how this food may have become contaminated:
   a. By unclean hands handling the food
   b. By lack of protection from dust and dirt
   c. By flies and general uncleanliness

Have the pupils make a list of the canned foods which contain the pure food label. Discuss how fresh, clean foods may be used in place of them.

LESSONS V AND VI

Milk

Read to the class the article "All about Milk," Supplement, page 499.

While milk is a perfect food and should be included in the daily diet, there are important facts to know about its care. It is one of the common sources of diseases. Dirt gets into the milk from the body of the cow; from the stable; from the hands and clothes of the milker; and during the process of cooling and bottling the milk. The germs in milk multiply rapidly unless the milk is kept very cold. The chief cause of illness among babies in summer time is dirty cow's milk.

Diseases which may be carried through milk are: tuberculosis from diseased cows; typhoid, diphtheria, and sore throat from those who handle the milk.

How to make milk safe:

1. It must come from cows that are free from tuberculosis or other diseases. How may you know? (Ask your city or state health department to supply you with literature or information on tuberculin-tested cows and on other regulations governing the milk supply.)
2. Barnyards and buildings must be kept clean.
3. Those who handle the milk must be free from disease.
4. The only way to make milk really *safe* is *pasteurization.* Buy pasteurized milk from your milkman or pasteurize it in your own home.

Pasteurization of milk at home:

1. Place the bottle of milk in a pan of water, nearly the depth of the bottle. Put a milk thermometer into the water and allow the water to heat up to about 145°. Keep it about this temperature for thirty minutes. Cool it at once.
2. If you have no milk thermometer, place the milk in a pan of water and allow the water to come to the boiling point. Let it stand on the back of the stove for one-half hour. Cool it at once.
3. Milk should always be kept covered, cool, and clean.

Care in the home:

1. Danger in permitting milk to stand in the sun after delivery.
2. Contamination by flies, by cats, and by milkmen's hands.
3. Bottles should be carefully washed around the top and immediately placed on ice.

LESSON VII

Arrange for a visit to a milk farm or a dairy. Obtain as much information as possible on the milk supply of your own community. Find out what your city and state are doing to protect the milk supply.

LESSON VIII

The Health Committee should have charge of this class lesson. Its members should lead in a discussion

on "Posture." Ways and means by which the class members may maintain better postures should be discussed.

References

O'Shea and Kellogg, *Health and Cleanliness*, chapters xii and xiv. Macmillan Company, 60 Fifth Avenue, New York.

Winslow and Williamson, *The Laws of Health*, pages 153–158. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Woods Hutchinson, *Community Hygiene*, chapter xxii. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Pamphlet: "Care of Food in the Home," *Farmers' Bulletin No. 375*. Published by the United States Department of Agriculture, Washington, D. C.

MARCH

TUBERCULOSIS

Suggestions that promote interest in personal health

Appoint a new health committee. Assign the subject "The Care of the Eyes." Have the committee assemble pictures and posters to place in the schoolroom. The committee should study the subject and lead a class discussion. Special attention should be given to the lighting of the schoolroom. Include the habit of the care of the eyes in checking the chore folder. Valuable information may be obtained from the Eye Sight Conservation Council of America, Times Building, New York City.

LESSONS I AND II

This is the month in which we *measure* as well as weigh all pupils. Have each pupil record his weight on the classroom weight chart and give probable reasons for losses or gains.

LESSON III

To the teacher:

In presenting the subject of tuberculosis, we are not aiming to teach about the disease or especially to impress you with the horrors of the disease. On the contrary, we want to impress you with the *truth*—that tuberculosis is largely the result of *unhealthy living* and that its cure is *healthy living*. As our effort throughout this work is to instill in the minds of the pupils and teachers a *belief* in the

importance of daily health habits, we hope that these lessons on tuberculosis will strengthen our arguments on the necessity of observing a daily health standard.

Tuberculosis or consumption[1]

Is often called the Great White Plague.

Is more deadly than any other contagious disease.

Is most common between the ages of eighteen to forty-five years of age. (Nearly one-third of the people who die between these ages, die of tuberculosis.)

Its cause:

1. Tuberculosis is caused by a germ or bacterium discovered by Robert Koch; this germ is called Koch's bacillus. (Have the pupils read and discuss the discovery of Robert Koch.)
2. Tuberculosis may grow in many parts of the body but is most likely to be found in the lungs.

How it is spread:

1. The germ is discharged in the spray of the cough and the sputum of one affected.
2. It may be transmitted from one to another by the careless use of drinking cups, dishes, handkerchiefs, or any object which has been in close contact with the patient.
3. Tuberculosis is a disease common among cattle; children may become infected by drinking the milk of the tuberculous cows; this is the reason why cows should be tuberculin-tested in order to make sure that the milk is safe.

[1] The work on tuberculosis in Lessons III to V is an outline of material in Winslow's *Healthy Living*, Book Two, used by permission. Copyright, 1920, by Charles E. Merrill Company.

How to prevent the spread:

1. Patients should carefully prevent the spread of the germs which are discharged from their mouths.
2. The milk of all cows not certainly known to be free from the disease should be pasteurized.
3. Patient should always cough into a cloth or paper napkin which can be burned; if handkerchiefs are used, they should not be put in a laundry bag with other linen but should be boiled in strong soapsuds for twenty minutes.
4. Sputum should be received in a paper cup and burned.
5. The patient should have his own dishes and drinking cup. Dishes should be boiled for fifteen minutes once daily.
   (It is not dangerous to live or work with a *careful patient.*)
6. Rooms that have been occupied by persons suffering from tuberculosis should, upon removal of the patient, be thoroughly cleansed by airing and exposing to sunlight; by washing woodwork and furniture and by scrubbing the floor with soap and water. Repapering and painting are sometimes also desirable.

LESSON IV

How to build up resistance against tuberculosis:

1. Tuberculosis is a disease in which vital resistance plays an important part.
2. Almost every individual is slightly infected with the germ some time through life. This does not mean that everyone suffers from the actual disease.
3. A healthy body has the power to defend itself against the invasion of a few germs.

4. The resistance of the body is lowered when strength is reduced by attacks of other diseases or because of improper health habits. This condition gives the germs a chance to multiply.
5. People most liable to the disease are those who work too hard and get too little food, those who live in dark, poorly ventilated houses, and those who do not get enough exercise, fresh air, sunlight, and nourishing food.
6. People who have recovered from tuberculosis, and those in whose family there has been a case, should be especially on guard against allowing their vital resistance to become weakened.
7. We can largely control tuberculosis by applying the ordinary principles of hygiene, a nourishing diet, plenty of fresh, cool air, and sufficient sleep.

LESSON V

Importance of early treatment:

1. Treatment to be started as soon as possible. Cases discovered in the early stages are easily cured. When the disease has gone far it usually cannot be checked.
2. If any member of a family or a close relative has the disease, other members should consult a physician often to assure themselves; they should most carefully observe a daily health standard.
3. Any one who has a cough that hangs on or who continually feels tired and worn out without a cause or who gradually loses weight should consult a physician.

The cure of tuberculosis:

1. Just as the tuberculosis germ fails to gain a real foothold in the body of a thoroughly healthy person, so by the proper hygienic treatment it can be conquered even after it has begun work.

2. Severe treatments or medicines are not a cure.
3. "Consumptive cures" are frauds which waste the money of their victims and do immeasurable harm by the loss of precious time.
4. The cure for tuberculosis is hygienic living under the advice of a competent physician.
5. The cure does not depend on any special climate. Often the strain of a long trip is detrimental. The mental condition may suffer strain because of expense. The loneliness often incurred by being taken away is very detrimental; a cheerful mental state is a necessity.
6. With proper treatment, people get well in all parts of the United States.

Care in a hospital or sanitarium:

1. Insures protection of family and friends.
2. Teaches the patient how to care for himself and how to protect his family.

LESSON VI

Tuberculosis — prevention in the homes[1]

Contact cases:

1. Examination at least twice a year of all people in the home who come in contact with the patient, whether or not they show any symptoms of illness
2. Ventilation — night and day
3. Personal cleanliness
4. Drinking plenty of water
5. Good, nourishing food
6. Exercise in the open
7. Plenty of sleep
8. Keeping elimination in order

[1] This material is from the *Ohio Course of Study in Hygiene.*

9. *Never:*
   - *a.* Sleep with, or in the same room with the patient.
   - *b.* Drink from the same glass.
   - *c.* Eat from the same dishes.
   - *d.* Use the same towels or washcloths.
   - *e.* Sit where you can get the spray while the patient is talking.
   - *f.* Sit in an unventilated room.

Some facts to be remembered:

1. Tuberculosis is a preventable disease.
2. Tuberculosis is curable in its early stages.
3. Tuberculosis is not hereditary.
4. Its prevention is hygienic living or maintaining vital resistance.
5. Its cure is hygienic living or building up vital resistance.

LESSON VII

Have the pupils write a theme on any of the above facts concerning tuberculosis.[1] Permit them to discuss various ways and means of disseminating this knowledge to the public. Why is it so important that the public be told?

LESSON VIII

The health committee should be given this class period for their discussion on the "Care of the Eyes." Their aim should be to make a definite improvement in the lighting of the schoolroom and in the individual care of the eyes.

[1] The National Tuberculosis Association conducts a great educational campaign for the prevention of tuberculosis. You will be able to obtain excellent material from it. Address The National Tuberculosis Association, 370 Seventh Avenue, New York City.

References:

Terman, *The Hygiene of the School Child*, chapter ix, pages 127–147. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Winslow, *Healthy Living*, Book II. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Winslow and Williamson, *The Laws of Health*, pages 178–182. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Pamphlets may be obtained from the National Tuberculosis Association, 370 Seventh Avenue, New York.

APRIL

OUR INSECT ENEMIES

Suggestions that promote interest in personal health

Appoint a new health committee. Assign the subject "Cheerfulness." Have the members assemble pictures and posters to place in the schoolroom. They should study the subject from the standpoint of its effect on daily happiness and contentment. Have them lead the class discussion. Each member of the committee should tell a story that suggests a keen sense of humor.

LESSONS I AND II

Weigh the pupils. Have each record his weight on the classroom chart and give probable reasons for loss or gain.

LESSONS III AND IV

Assign a lesson to be studied from a hygiene textbook on the mosquito as a disease carrier. In connection with the textbook material develop the following points:

Mosquitoes

Malaria:

1. Is caused by a germ which grows in the blood.
2. May be carried from one person to another, only by the bite of a mosquito. (This discovery cleared up many false ideas.)
3. Thrives in damp, marshy regions because mosquitoes breed and thrive in these regions.

Control of mosquitoes:

1. Drain or fill in small pools as far as possible.
2. Pour crude oil or kerosene as often as every few weeks into pools that cannot be cleaned. (Fish and frogs in a pool help to destroy the mosquito.)
3. Screen porches and windows in malarial regions.
4. Do not allow the insect to bite the patient.

LESSONS V AND VI

Mice and rats

Assign a lesson to be studied from a hygiene textbook on mice and rats as breeders of disease and filth. In connection with the textbook material develop the following points:

1. Rats and mice inhabit the filthiest places.
2. They not only destroy food, but they contaminate it by spreading germs of filth and putrefaction. (Keep them out of the cellar where you have stored your apples and vegetables for the winter.)
3. Rats and mice are the chief means by which the dreaded disease, the bubonic plague, is spread.
4. Dr. Woods Hutchinson in *Community Hygiene* says: "It is almost impossible to believe the figures of the Department of Agriculture, which estimate the damage done by rats and mice to food and food products in the United States at over fifty million dollars annually, but they are true. It is not too much to say that one-tenth of that sum spent each year for five years would exterminate them completely and stop all this waste."

Have the pupils give examples of the damage done by rats and mice which they have observed, such as gnawing in clothing, through woodwork, in foodstuffs, and so on.

Discuss intelligent methods of exterminating mice and rats. Discuss some of the fraudulent methods that are sometimes advocated and tell how they may be avoided.

LESSON VII

Flies

Assign a lesson to be studied from a hygiene textbook on the fly. In connection with the textbook material develop the following points:

The fly, one of the most common insect carriers of disease in the United States:

1. Breeds filth.
2. Lives on filth.
3. Carries filth.

Trace the path of a fly during a very few minutes' time from filth to food; from disease to food.

How One Fly Multiplies

	Flies
April 15	1
May 1	120
May 28	7,200
June 20	432,000
July 10	25,920,000
July 29	1,555,200,000
August 18	93,312,000,000
September 10	5,598,720,000,000

FIG. 45. POSTER ON THE HOUSE FLY

How to fight against flies:

The best way to destroy the fly is to destroy its breeding place. (Each community breeds its own flies. Flies do not travel more than one hundred yards from their breeding places.) Prevent their breeding by trapping them. Keep them away from food. Organize:

Anti-fly campaigns
Trap-the-fly campaigns
Swat-the-fly campaigns

How to make your community flyless:

Educate, and stir up action.
Prevent breeding of flies.
Keep filth covered until removed.
Screen porches, doors, and windows.
Make all outdoor toilets fly-proof.
Kill all winter flies.
Trap the fly.
Swat the fly.
Keep everlastingly at it.
Insist upon your neighbors doing likewise.

Have pupils write slogans, such as:

"The only good fly is the *dead* fly."
"Get the fly before the fly gets you."

Have the pupils make a fly trap and a fly swatter. Organize a campaign against flies.

LESSON VIII

The health committee should be given this class period for its stories and discussion on cheerfulness.

References:

O'Shea and Kellogg, *Health and Cleanliness*, chapters x and xi. Macmillan Company, 60 Fifth Avenue, New York.

Woods Hutchinson, *Community Hygiene*, chapter xxviii. Houghton Mifflin Company, 2 Park Street, Boston, Massachusetts.

Pamphlets:

Ohio State Department of Health, "The House Fly: Carrier of Disease." Columbus, Ohio.

United States Public Health Department, "The Transmission of Diseases by Flies," by E. A. Sweet. (*Supplement No. 29.*) Washington, D. C.

MAY

REVIEW

Suggestions that promote interest in personal health

Appoint a new health committee. Have the committee collect the health chore folders and evaluate them. The pupils who have kept the greatest number of health chores over the longest period of time should be granted some special privilege. Give out new health chore folders and encourage the pupils to check them during the summer.

LESSONS I AND II

Weigh the pupils. Have each pupil record his weight on the classroom weight chart. Discuss the things the pupils should do during the summer to make the expected gain in weight. Emphasize the importance of maintaining high standards of personal hygiene and also the correction of physical defects.

LESSONS III, IV, AND V

Have the pupils write health themes on any subject they may choose pertaining to the work covered this year.

LESSONS VI, VII, AND VIII

Have each pupil make a health book featuring his health habits. See Figures 32–34, pages 270–272, and Figures 74–76, pages 560–562, for suggestions.

GRADE VIII

FOREWORD

To the teacher: Our object in presenting hygiene to the eighth grade is to teach health in its broader meaning, but at the same time to continue to stimulate interest in personal health. To pupils in this grade, health means more than personal care; it becomes as well a civic and an ethical duty. For this reason our lessons have been planned with the hope of stimulating interest in the various branches and duties of city and state health departments. We want to impress the pupils with the importance of knowing what these public organizations offer the people in the way of health protection. On the other hand, we want the pupils to know what their responsibility as citizens should be toward public health organizations. We try to impress each pupil with the importance of his health responsibility toward himself, his neighbor, and the community.

You should look over the outline for at least one month in advance, as we have asked you often to obtain information from your city and state health departments relative to their duties and organization. If you care to, you may appoint a committee of pupils to obtain this information for you.

We recommend that the pupils to be provided with textbooks which will furnish subject matter as a background for the outline which is presented.

We have asked you to weigh the pupils once each month and to take their height twice each year. Probably October and March will be most convenient for measuring the pupils. You should direct the pupils to remove unusually heavy coats or sweaters unless they are worn to replace necessary clothing. They need not be directed to remove their shoes. You should, however, allow for the extra weight of these clothes. While the pupils in this grade are old enough to weigh themselves, you will find it much more interesting to them if you weigh them and are aware of their progress. Even though the pupils are permitted to do the weighing, you should personally supervise it. A classroom weight record should be kept posted in the schoolroom. Such records may be obtained from the American Child Health Association, 370 Seventh Avenue, New York; or from the Department of the Interior, Bureau of Education, Washington, D. C.; or from a local health agency. If you care to, you may make the chart. (See the illustration on page 489, Figure 52.) The article on "Malnutrition," page 492, includes many of the interesting points governing underweight children.

Even though the lessons presented are based upon problems of community health, we feel that an interest should be maintained in personal health. Many devices have been worked out for this purpose. A daily check of the health chore folders with a weekly or biweekly discussion on various points in personal hygiene is very effective. You may go farther and develop the Modern Health Crusade, which is valuable in promoting health interest. Material and full information on the development of

the Modern Health Crusade may be obtained from the National Tuberculosis Association, 370 Seventh Avenue, New York. The chore folder is illustrated on pages 546–547, Figures 60 and 61.

We are offering you a plan which has been developed and carried out by eighth-grade pupils. The spirit which their organization created among the members of the class and the health results which were obtained lead us to recommend heartily its use through the eighth grade. We are giving you the detailed plans of the organization. Let us call your attention to the fact that the suggestions that promote health interest which are offered at the beginning of each month's outline are based on the plan of this organization. You may decide upon using the Modern Health Crusade or the Health Promoting Association, or you may develop a plan of your own. Whatever plan you may choose to use, let us urge you to keep before the pupils the importance of maintaining the highest daily standard of personal health, which is the basis of a happy and useful life.

HEALTH PROMOTING ASSOCIATION[1]

Answer the Call!
Recruits Wanted!
Serve Your Country!
Your School!
Your Home and Community!
Join the
H
P
A.

[1]By courtesy of Miss Anna Healy, eighth-grade teacher.

PREFACE

We are offering the Health Promoting Association as one method of interesting boys and girls of the eighth grade to become better citizens because of a greater physical efficiency.

It has been our experience that eighth-graders like to do things. They like to feel that they are of value to both school and community.

To have their classmates elect them to office is to bestow upon them both an honor and a responsibility.

Teachers who have initiative and who are filled with enthusiasm can readily see the value of such an organization and numerous ways in which such an organization would function both in and out of school.

Could not such an organization in the eighth grade do much to enthuse the younger folks in the building?

Picture the pride of some eighth-grader being allowed to form a Junior Auxiliary in the second grade. Could not such an eighth-grader be of untold value, to the teacher who finds it too much of a task, to weigh and measure her charges once a month?

I know of eighth-graders who could give an instructive talk on care of the teeth or personal cleanliness to a room of fourth-graders and would be delighted to do so, if the teacher of "said room" had no objection.

By the time the departments had presented, discussed, collected data, planned programs and "put us all through the traces," I judge that all the members of the

Health
Promoting
Association

would be well versed in school hygiene.

SPONSORS:

Teacher *Nurse* *Principal*

OFFICERS:

President
Vice-President
Secretary
Treasurer

HEADS OF DEPARTMENTS:

1. Department of Personal Cleanliness—
2. Posture Department—
3. Department of Food—
4. Keeping Well Department—
5. Civic Health Department—

INSPECTORS:

(To be appointed by head of department.)

ADVERTISING COMMITTEE:

(Supervised by the Vice-President)

Honor roll. (Those who have achieved a set standard and passed a required test.)

Purpose: To gain for every boy and girl in America a strong and healthy body.

Slogan: More Health! Better Health!

Pledge: I do hereby solemnly affirm to do all within my power to promote the health and welfare of myself, my school, my home, and my community.

Creed:

My body is the temple of my soul.

Therefore:

I will keep my body clean within and without;
I will breathe pure air and I will live in the sunlight;
I will do no act that might endanger the health of others;
I will try to practice the rules of healthy living;

I will work, read, and play at the right time and in the right way, so that my mind will be strong and my body healthy, and so that I shall lead a useful life and be an honor to my parents, to my friends, and to my country.

Yell:

Health Workers!
Health Workers!
Rah! Rah! Rah!
Health Workers!
Health Workers!
Ha! Ha! Ha!
We have ginger,
We have pep,
Health Workers!
Health Workers!
Yep! Yep! Yep!

Health song:

TUNE: "*There's a Long, Long Trail*"
(With variations)

Oh, the health campaign is with us,
And we must strive to see it through,
So, it's work, and work, and work some more
For me and you.
We must always keep on caring
To build our bodies strong and free,
For we wish to show our country
What boys and girls can be.

Oh, the health campaign's not as easy
As you perhaps may think,
For there's work, and work, and then more work,
From which we must not shrink.

For we must grow strong and healthy
And do our part the best we can,
For we all wish to become
Strong women and men.

Membership (rules):

1. Eligibility depends upon obedience to and compliance with rules of good health.
2. Members may have the right of recall.
3. Members are subject to fines; such fines are to be levied by vote of three-fourths majority in general meeting.
4. Officers and heads of departments are to be elected by popular vote of members.
5. Heads of departments may appoint inspectors and committees.
6. Officers and members may have the right of trial by jury in case of fines, suspension, or recall.

(Other rules may be worked out as one finds such rules necessary.)

A. Supervision of Department of Personal Cleanliness:

a. Face
b. Ears
c. Neck
d. Hands and finger nails
e. Teeth
f. Feet
g. Hose (cleanliness)
h. Shined shoes
i. Clean handkerchiefs
j. Neatness of dress
k. Collars and ties (boys)
l. Modesty of dress (girls)

m. Hair
n. Any other question that may arise relative to personal cleanliness

B. Supervision of Posture Department:

a. Standing position
b. Sitting position
c. Reclining position
(Discuss and encourage correct reclining position.)
d. Correct posture during physical training
e. Walking
f. May recommend members for athletic teams
g. Any other question that may arise concerning posture

C. Supervision of Food Department:

a. Correct quantity
b. Selection
c. Rate of eating
d. Regularity
e. Extra lunches
f. Care of weight
Keep and check height and weight of each member at least once a month.
g. Suitable menus for members
h. Recommendations for promotion to and removal from athletic teams

D. Supervision of Keeping Well Department:

a. Fresh air
b. Exercise
c. Regularity of habits
d. Checking of chore cards
e. Correct amount of clothing
f. Attendance

E. Supervision of Civic Health Department:

a. Ventilation:
   1. Schoolroom
   2. Home (encourage each one to improve ventilation of home)

b. Sanitation:
   1. School
   2. Home

c. Prevention (as far as possible) of communicable diseases

d. Order of desks—room

e. Care of books and material

f. Clean-up campaigns

g. Anything that may arise concerning civic or community welfare

F. Advertising Committee:

a. Plan talks

b. Programs

c. Civic lessons

d. English lessons

e. History lessons

f. Geography lessons

g. Posters

h. Booklets

i. Almost an unlimited field—campaigns and "what not"

SEPTEMBER

COMMUNITY HYGIENE

Activities of the Health Promoting Association

In the Foreword to this grade we have given the general plan of the Health Promoting Association. Arrange to organize your association some time during this month. Have the members of the Department of Personal Cleanliness decide upon the points of cléanliness that should be observed by the members of the association. Have a general class discussion on these points. (We have allowed the last class period each month for the activities of the Health Promoting Association.)

LESSONS I AND II

Weigh and measure the pupils and have each one record his weight on the classroom weight chart. (The Foreword to this grade includes a paragraph on the process of weighing and measuring.) Refer to Weight-Height-Age Tables, pages 487 and 488.

LESSON III

Factors contributing toward community hygiene

Assign lessons on community hygiene to be studied from a textbook. In connection with the textbook material, discuss the points as outlined throughout the month.

There are three factors which contribute toward community health: (*a*) personal hygiene; (*b*) home sanitation;

(*c*) school sanitation. Discuss the ways in which these three factors contribute.

A department of health or a board of health is organized for the protection of the people of the community. This organization is necessary because some individuals are unwilling to conform to laws of health unless they are compelled to do so, and still others are ignorant of the laws that should be obeyed. City governments have set aside a yearly appropriation to maintain departments of health. Obtain from your city health department its plan of organization for the protection of the health of the people in the community. Outline and study the plan.

LESSON IV

City health department—Contagious diseases

What is meant by a quarantine?

What is meant by a placard?

What are the regulations governing the quarantine of an apartment or rooming house? Of a private home?

Discuss how quarantining and placarding a home protects the individual, the school, and the community.

Discuss the responsibility of a health department in tracing sources of infection; the care of the city's milk supply; the care of the city's water supply. Find out what it costs to maintain this department.

City health department—Department of public sanitation

Obtain all possible information on the regulations of your city regarding (*a*) disposal of garbage; (*b*) unclean alleys; (*c*) sewers; (*d*) streets.

Find out the approximate cost of maintaining this department.

Discuss the advantages of such a department. Try to find out if it functions in your city. If not, why not?

LESSON V

City health department—Food inspection

Obtain information from your department of health on the food inspection department. Study the regulations governing the inspection of meat, of milk, of bakeries, of hotels, of restaurants, of lunch stands, and of foodstuffs. Read the Pure Food Law passed June 30, 1906. What protection does it offer?

LESSON VI

Obtain from the city health department a statement of the appropriations for the different departments and study relative values of expenditure. If possible, have a representative from the city health department give a talk on the duties of the various departments.

LESSON VII

Have the pupils write themes on "What a Department of Health Means to a City."

LESSON VIII

This class period should be in charge of the Health Promoting Association. Suggestions for discussion were given at the beginning of the month.

References:

Broadhurst, *Home and Community Hygiene.* J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania.

Burnham, *The Community Health Problem.* Macmillan Company, 60 Fifth Avenue, New York.

Winslow, *Healthy Living*, Book II, chapter xxviii, page 317; chapter xxix, page 330. Charles E. Merrill Company, 440 Fourth Avenue, New York.

OCTOBER

COMMUNITY HYGIENE (*Continued*)

Activities of the Health Promoting Association

Have the members of the advertising committee prepare a health bulletin board or a health table. Assign the subject "Milk" to the members of the department of food. Have them collect posters and literature on this subject and place it on the health table or bulletin board. A member of the committee should read the article "All about Milk," page 499, to the class. Discuss especially the paragraphs on "Milk for Grown-ups" and "Price of Milk."

LESSONS I AND II

Weigh the pupils and have each one record his weight on the classroom weight chart. Discuss probable reasons for individual losses and gains. Read the article on "Malnutrition," page 492, to the pupils. Discuss the important points.

LESSON III

Have a class discussion on the subject "Why It Is the Duty of Each Individual to Know the Sanitary Conditions of His City."

Have a class discussion on the subject "How to Obtain and Maintain Good Laws of Sanitation."

LESSON IV

State health department—Organization and activities

Write to your state health department for literature explaining its organization and activities.

Who is your state health director?

Where is he located?

How does he obtain his position—by election or appointment?

Length of term of office
Salary
Duties
Personnel of department

How does the state department of health aid the rural communities.

How is a rural board of health organized? What are its powers and limitations?

LESSON V

State health department—Vital statistics

What is meant by vital statistics?

Find out all you can about how they are obtained.

Clip the vital statistics daily from the newspapers for several weeks.

Compare the death rate of your community with the birth rate. What are the birth rate and the death rate per year of infants in your town or community? (This information may be obtained from local board of health.)

Compare the number of deaths from tuberculosis with the total death rate. What does this mean to your community?

What may we learn about the health conditions and health needs of our community through a study of vital statistics?

Why should everyone have his birth certificate?

LESSON VI

State health department—Public health nursing

County nursing service:

Duties of nurse:

1. Health education:
   - *a.* Personal hygiene
   - *b.* Community sanitation
   - *c.* School sanitation
2. Correction of physical defects of children
3. Organization of free clinics

(If possible, secure a county nurse or have your school nurse tell you of the services of a county public health nurse.)

LESSON VII

Have a general discussion on the value of city and state departments of health.

LESSON VIII

This class period should be in charge of the Health Promoting Association.

References

Burnham, *The Community Health Problem.* Macmillan Company, 60 Fifth Avenue, New York.

Winslow and Williamson, *The Laws of Health*, chapters xxiv, xxv, xxvi. Charles E. Merrill Company, 440 Fourth Avenue, New York.

NOVEMBER

FIRST AID

Activities of the Health Promoting Association

Have the members of the Food Department obtain posters and literature on food. They may arrange a demonstration of three well-balanced, healthful meals. Have them discuss reasons for the selection of foods. Their food rule should be:

A maximum of vegetables, fruits, and cereals.
A minimum of meats, sweets, and pastries.
Drink some milk every day.
Do not drink tea or coffee.

Have a member of the food committee read the article on "Food," on page 514, to the class. Have a class discussion.

LESSONS I AND II

Weigh the pupils and have each one place the record of his weight on the classroom weight chart. Discuss probable reasons for individual losses and gains.

LESSON III

Accidents and first aid [1]

Two things necessary in accidents:

a. Know what to do.
b. Do it promptly.

[1] The work on first aid in Lessons III to V is outlined from the American Red Cross book on *First Aid*, by permission of P. Blakiston's Son & Company.

Always remember two things when some one is badly hurt:

a. Send for a doctor.

b. Keep cool — do something.

FIG. 46. INVERTING THE UPPER EYELID

Eye

Injury of eye:

a. Have a doctor treat any kind of injury.

b. Cover both eyes with absorbent cotton or soft cloth soaked in cool water so as to keep the eyelids still, and bandage them into place. Keep these constantly moist until the services of a doctor can be procured.

Foreign bodies in the eye:

a. Never rub the eye, as this may rub the foreign body into the eyeball.

b. Remove foreign bodies by:

1. Closing the eye so that the tears will accumulate —the foreign body will frequently be washed out or into view so that it may be removed.
2. Take hold of the lashes, draw the upper lid over the lower lid several times. Close the nostril on the opposite side with the finger and have the patient blow his nose hard.
3. Examine first under the lower lid, then under the upper lid.
   (1) If foreign body lies in lower lid:
   Have patient look up.
   Press the lower lid down and brush the foreign body off with corner of clean handkerchief.
   (2) If foreign body lies in upper lid:
   Seat patient in chair facing the light.
   Stand behind him.
   Have patient bend head backward and look down.
   Grasp the lashes of upper lid with right hand—with the left hand place the forefinger or a pencil across the upper lid, one-half inch from eye.
   Turn the upper lid up and back and brush off the foreign body lightly.

c. Do not consider a foreign body in the eye lightly. (If some one at hand is not able to remove it, call a doctor.)

Lime in the eye:

a. Bathe the eyes with vinegar and water. (One teaspoonful of vinegar to one cup of water.)

b. Remove large particles.

Acid in the eye:

a. Wash eyes at once with an alkali, such as soapsuds.

Have pupils demonstrate first aid to eyes:

1. Inverting upper lid.
2. Placing a bandage which will hold cotton in place over both eyes.

LESSON IV

Ear

Injury to the ear:

a. Leave the treatment of any kind of injuries to a doctor.

b. Do not attempt to remove wax from the ear with a pointed instrument.

Insects or flies in the ear:

a. Drop a little warm oil into the ear and incline the head to the opposite side—oftentimes this will kill the insects and they will float out.

Foreign bodies in the ear:

a. To remove these obtain the services of a doctor.

Nose

Foreign bodies in the nose:

a. To remove these:

1. Close opposite nostril with finger and have the patient blow his nose hard, or
2. Cause the patient to sneeze by tickling the nose with a feather, or
3. Call a doctor, if the above methods fail.

Throat

Foreign bodies in the throat:

a. Are of special concern because they may cause suffocation by blocking the windpipe.

b. To remove these:

1. Slap the patient on the back between the shoulder blades—this will often dislodge the foreign body.
2. Call a doctor if the patient gags and coughs. (In the meantime turn the patient upside down at once; put finger into the back of the throat and try to hook out foreign body. Do this boldly, for failure may mean the death of the patient.)
3. If breathing has ceased, perform artificial respiration, after foreign body has been removed. (See page 451.)

LESSON V

Nosebleed

Slight nose bleed:

a. Does not require treatment, as no harm will result from it.

Severe nosebleed:

a. Place patient in chair with his head hanging backward.

b. Loosen collar and anything tight around the neck.

c. Apply cold to the back of the neck by means of a key or of a cloth wrung out in cold water.

d. Put a roll of paper under the upper lip, between it and the gum.

e. Place a small piece of cotton or gauze in the nostril from which the blood comes and shove it in gently for about one inch.

f. Call a doctor if above treatments fail to stop bleeding.

Wounds

Varieties of wounds:

a. Cut or incised wounds—the skin and underlying tissues are cleanly divided by the sharp instrument.

b. Torn or lacerated wounds—the tissues are torn rather than cut.

c. Punctured wounds—deep wounds of small calibre produced by sharp-pointed instruments.

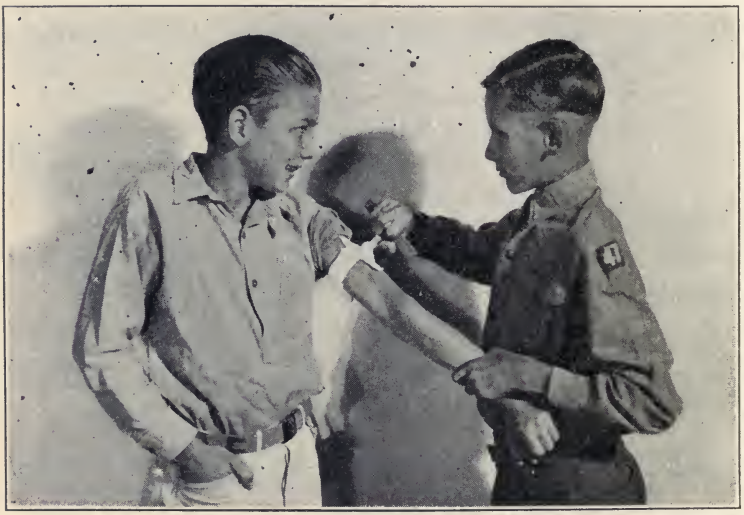


FIG. 47. A TOURNIQUET BANDAGE

Treatment of wounds:

a. Treatment of wounds without severe hemorrhage:

1. Send for a doctor at once if it is a deep wound or one which covers considerable surface.
2. Cut or rip clothing so as to get a view of the wound; turn back the clothing so it does not touch wound.

3. Do not touch wound yourself or allow patient to touch it.
4. Remember there is no hurry, for air will not infect the wound. (Exposure to the air is much safer than the application of anything which is not clean or antiseptic.)
5. If you have iodine, paint all parts of the wound which you can reach.
6. Bandage the wound if you have a surgically clean or antiseptic wound dressing.

b. Treatment of wounds with severe hemorrhage:

1. Put injured person in such a position that he will be least affected by the loss of blood. (This is lying down with the head low so that the brain will get as much blood as possible.)
2. Do nothing which will increase bleeding—violent movements must be prevented.
3. To check bleeding from an arterial hemorrhage (recognized by bright red blood expelled in jets) send for a doctor at once.
4. Press with your finger or thumb on the artery between the bleeding point and the heart:

   (1) Bleeding from any part of the scalp may be stopped by a tight bandage around the head.

   (2) Bleeding from the side of the head may be stopped by pressure on the temporal artery in front of the ear, just above where the lower jaw may be felt working in its socket.

   (3) All arterial bleeding from the head, except that already referred to, and from the neck above had best be checked by pressure on the carotid artery. To make such pressure

press backward with thumb or fingers deeply into the neck just to the inner side of the plainly seen muscle which reaches from upper part of breast bone to behind the ear.

(4) In bleeding from any part of the arm or hand, the brachial artery is usually pressed outward against the bone just behind the inner border of the large muscle of the upper arm. (This artery runs about in a line with the seam of the coat.)

(5) Bleeding from the hand may be checked by placing pressure on the pulse at the outer side of the wrist and at the same time placing pressure at the inner side.

(6) In bleeding from the thigh, the leg, or the foot, press backward with the thumbs at the middle of the groin where the artery passes over the bone. (This is four finger-breadths below the fold of the groin.)

(7) For bleeding below the knee, a pad about the size of a billiard ball may be placed in the bend of the knee, the joint is bent on it and is bandaged in this position. In wounds of the extremities have a tourniquet made to place around the limbs. (Your fingers will become tired and cramped from making pressure.) To make a tourniquet:

(*a*) Tie a knot in the center of a handkerchief.

(*b*) Place this knot over the artery.

(*c*) Tie the handkerchief loosely around the limb, but with a firm knot.

(*d*) Place a stick under the bandage and twist it round until the bandage is tight enough to stop the bleeding.

(*e*) Loosen it slightly after eight or ten minutes to see if bleeding has ceased. (If bleeding has not ceased, tighten again; if it has been checked, loosen bandage but leave it in position in event bleeding starts again.)

(*f*) Do not allow bandage to be kept tightened too long. (Two hours is perhaps as long as it should be left in position.)

5. To check bleeding from a venous hemorrhage (recognized by a steady flow of dark blue blood):
   (1) Send for a doctor.
   (2) Remove any bands, such as tight collars, belts, and clothing which prevent the return flow of blood to the heart.
   (3) Apply a compress directly to wound and bandage it on tightly.
   (4) Make direct pressure in the wound with the fingers if no compress can be obtained which is surgically clean or antiseptic and bleeding is very severe.
   (5) If possible keep wounded part in an elevated position for some hours after bleeding has stopped.

LESSONS VI AND VII

Permit the class to practice the method of bandaging for profuse bleeding of the arm or leg until each member knows the process.

LESSON VIII

This class period should be in charge of the Health Promoting Association.

References

American Red Cross, *First Aid.* P. Blakiston's Son & Company, 1012 Walnut Street, Philadelphia, Pennsylvania.

O'Shea and Kellogg, *Making the Most of Life,* chapter xv. Macmillan Company, 60 Fifth Avenue, New York.

Winslow, *Healthy Living,* Book II, chapter xxv, page 242. Charles E. Merrill Company, 440 Fourth Avenue, New York.

DECEMBER

FIRST AID (*Continued*)

Activities of the Health Promoting Association

Have the members of the Department of Personal Cleanliness prepare a lesson and lead a class discussion on the "Care of the Teeth." Ask a teacher from the lower grades to permit one of her pupils to show your class "how he brushes his teeth." Members of the advertising committee may prepare short talks on "Teeth" to be given to the pupils of the fourth grade. Just imagine how the children of the first and second grades would enjoy it if one of the boys of this committee would dress as Santa Claus and give them a talk on "things Santa Claus would like to have them do so that they will grow to be healthy boys and girls."

LESSONS I AND II

Weigh the pupils and have each one place the record of his weight on the classroom weight chart. Discuss probable reasons for individual losses and gains.

LESSON III

Fainting[1]

Causes:

a. Room may be poorly ventilated or overcrowded.
b. Patient may overexert, following an illness.
c. Patient may have had a sudden mental shock.

[1] The work on first aid in Lessons III to VI is outlined from the American Red Cross book on *First Aid* by permission of P. Blakiston's Son & Company.

Symptoms:

a. Patient becomes pale and loses consciousness.
b. The pulse is weak and rapid.

Treatment:

a. Patient should be placed on his back with his feet elevated.
b. He should be given plenty of air.
c. Cold water should be dashed in his face if he doesn't regain consciousness at once.
d. A doctor should be sent for if patient doesn't recover in a short time.

Sunstroke

Causes:

a. Direct exposure to the rays of the sun.
b. Prolonged exposure to excessive heat while working indoors.
c. Extremely heavy clothing or caps and hats which do not protect from the sun.

Symptoms:

a. Pain in the head and feeling of oppression comes before attack.
b. Face is red and the skin hot and dry.
c. Pulse is rapid and full; insensibility is usually complete.

Treatment:

a. Patient should be removed to a cool place or wrapped in sheets wrung out in cold water.
b. Clothing should be loosened.
c. Cold wet towels should be applied to head and body.
d. When consciousness returns, patient may be allowed to drink cold water freely.

Heat exhaustion

Cause:

a. Exposure to excessive heat.

Symptoms:

a. Dizziness, nausea, and vomiting.
b. Face may be pale and covered with clammy sweat or flushed and hot.

Treatment:

a. A doctor should be sent for.
b. Patient should lie on his back in a cool place with loosened clothing.
c. He should be given warm drinks and have his face and body bathed in warm water.

LESSON IV

Burns

Causes:

a. Flames, hot metal, explosions of gas or gunpowder, the electric currents, and strong acids or alkalies.

Treatment:

a. Where skin is reddened but not blistered:
  (1) The air should be kept from the burned place by applying a paste of baking soda and water, vaseline, lard, or any grease.
  (2) The area should be covered with clean cloth or bandage.
b. Where skin is blistered:
  (1) The burn should be treated as an open wound. (Refer back to outline on treatment of wounds, page 440.)

c. If clothing catches on fire:

(1) The person should lie flat on ground or floor and roll over and over to smother flames.

(2) The person may be wrapped in a heavy blanket, rug, or shawl if one is near. Wrap from *above down*. (This avoids driving the flames upward to be inhaled.)

Frostbite

Causes:

a. Cold, insufficient clothing, and general weakness with poor circulation of blood.

Symptoms:

a. The frozen part becomes painfully cold and then has no feeling.

b. The color of the frozen part is white or grayish white.

Treatment:

a. Snow or very cold water should be rubbed on the frozen part to bring it back to its natural temperature.

b. Warm water should be used gradually. (The use of heat at once may produce very serious results.)

LESSON V

Bruises

Cause:

a. A blow or fall. (The skin is not broken, but the force of the fall injures the tissues immediately below the skin, breaking numbers of small blood vessels. Swelling and a black-and-blue spot usually follow.)

Treatment:

a. A slight bruise needs no treatment.
b. A severe bruise:
  (1) Very hot or very cold applications, such as a heavy towel wrung in water, should be applied.
  (2) Patient should be placed in a resting position.
  (3) If arm or leg is affected, put arm in sling and elevate the leg.

Sprains

Cause:

a. Violent stretching, twisting, and partial breaking of the ligaments.

Symptoms:

a. Severe pain will follow immediately.
b. Pain is much increased by movement of joint.
c. The joint will swell.

Treatment:

a. A doctor should be called when the pain is severe.
b. Absolute rest of the affected part is necessary.
c. The joint should be elevated; very hot or very cold applications applied.
d. Either heat or cold should be used long enough to get full benefit of it. (That is, for some hours.)

LESSON VI

Broken bones or fractures

Cause:

a. A blow or fall.

Symptoms:

a. The injured person is unable to move fractured limb.
b. The limb is altered in shape and shortened or bent.
c. The limb when moved, instead of moving as a whole, will have an unusual movement something like that of a hinge.

Treatment:

a. A doctor should be sent for at once.
b. The patient should be kept as quiet as possible.
c. If necessary to lift or move the patient, the broken bone must be supported firmly by the hands, one hand on each side of the break.
d. The bone must not bend at the break while the patient changes his position.

LESSON VII

Have the pupils demonstrate the handling of a patient with a broken bone.

LESSON VIII

This class period should be in charge of the Health Promoting Association.

References

Pyle, *Manual of Personal Hygiene—First Aid.* W. B. Saunders Company, West Washington Square, Philadelphia, Pennsylvania.

Pennsylvania State Department of Public Instruction, *First Aid and Nutrition.* Harrisburg, Pennsylvania.

FIRST AID (*Continued*)

Activities of the Health Promoting Association

Have the members of the Keeping Well Department obtain literature and posters on "Fresh Air and Exercise." They should prepare a lesson and lead a class discussion on the value of fresh air and exercise. Have each member tell the type of exercise he likes best and have him give his reasons.

Read to the class the article on "Health and Recreation," page 568. Develop five important reasons for recreation as a health measure.

LESSONS I AND II

Weigh the pupils and have each one place record of his weight on classroom weight chart. Discuss with the pupils the probable reasons for individual losses and gains.

LESSON III[1]

Artificial respiration—The Schaefer Method

Position of patient:

a. Place the patient on the ground, face down.
b. Extend the patient's arms up, above the head. Place one hand under the patient's face.
c. Turn the head slightly to one side so that the ground will not block off the air from nose and mouth.

[1] Material in Lessons III, V to VII, outlined from American Red Cross book on *First Aid* by permission of P. Blakiston's Son & Company.

Position of operator:

a. Kneels at one side of the patient or astride the patient's body (without resting his weight upon it).

FIG. 48. ARTIFICIAL RESPIRATION (SCHAEFER METHOD)

Procedure of operator:

a. Places palms of hands on the ribs below shoulder blades with thumbs and fingers together (see Figure 48).

b. Lets his weight fall on his wrists by bending his body forward. (This decreases the size of the chest and the air is expelled from the lungs.)

c. Releases the pressure by swinging backward. (The elastic chest springs out to its original size and the air is drawn into the lungs.)

d. Continues these movements at the rate of 12 to 14 a minute. (Great care should be taken not to work with too much speed. A good way to keep a steady movement is to count 1, 2, 3 very deliberately. Press down on 1, 2, and spring back on 3.)

e. Keep the body covered and do not let it chill.
f. Do not allow an excited crowd to hover around. (The patient needs all the air he can get.)
g. Put the patient to bed, well covered and surrounded with hot water bottles, after he begins to breathe.
h. Give him hot broth or coffee when he is able to swallow it.

LESSON IV

Have the pupils practice the Schaefer method of artificial respiration until every member of the class has used the method on some one and has had it used on him. Simply to study the outline or to see the demonstration is not enough to actually teach the process. Deliberate action and self-confidence can be gained only through practice. It is as necessary to experience the method used on one's self as it is to practice it on another, as it helps one to appreciate the importance of the deliberate, steady action which is so necessary to the recovery of the patient.

Emphasize the importance of:

Position of patient
Position of operator
Deliberateness in movement

LESSON V

Drowning

Treatment:

a. Clean the mud or water from the mouth by use of a handkerchief wrapped around first finger.
b. Proceed at once with artificial respiration. (This should be kept up for at least two hours—of course it will be necessary to change operators.)

LESSON VI

Electric shock

(Swinging wires of any kind should be avoided, as they may be in contact with live wires.)

Treatment 1:

Rescue—Act promptly.

a. Shut off the current if possible.

b. Separate the patient from current if the current cannot be shut off.

1. Do not touch the body of the person touching a live wire, unless your own body is thoroughly insulated. (You should insulate yourself by covering the hands with a rubber coat, rubber sheeting or even several thicknesses of dry cloth. In addition you should, if possible, complete this insulation by standing on a dry board or a thick piece of dry paper or even on a dry coat.)
2. Do not come into contact with the live wire or other apparatus carrying the electric current.
3. To remove a live wire lying on a person, take a dry board or stick and flip the wire off.
4. To remove a live wire from under a person, you may remove it with the bare hands if you are certain that the ground upon which you stand is dry. (The wire may be safely cut by an axe or hatchet with a dry wooden handle and the electric current may be short-circuited by dropping a crowbar or poker on the wire.)

Treatment 2:

a. Proceed at once with artificial respiration.

b. Treat burns from electricity like any other burns.

LESSON VII

Poisoning

Treatment:

a. Send for a doctor at once.

b. Try to get the patient to start vomiting. (Running the finger down the throat or drinking a large quantity of water will usually cause vomiting. Other emetics are mustard and water or salt and water, a teaspoonful of either in a glass of lukewarm water. Repeat these doses several times if profuse vomiting does not result.)

Corrosive poisons

Strong acids (sulphuric, hydrochloric, nitric) and strong alkalies (caustic soda, potash, and lime).

Treatment:

a. Do not give an emetic.

b. Neutralize acid with alkalies as plaster from ceiling, magnesia, baking soda, or even soap; neutralize alkalies with acids as vinegar, lemon, or orange juice.

c. To dilute and soothe for both acids and alkalies give large quantities of oil, vegetable or animal oil; also water, milk, flour and water, or eggs beaten up.

d. Give strong tea or coffee as stimulants.

LESSON VIII

This class period should be in charge of the Health Promoting Association.

References

Gulick, *Emergencies*. Ginn & Company, 15 Ashburton Place, Boston, Massachusetts.

Pamphlet:. "The Safe Vacation, Selection of a Place to Go and What to Do in Case of Sudden Accident or Illness" (*Keep Well Series 5*). Washington, D. C.

FEBRUARY

PRACTICAL DEMONSTRATIONS

Activities of the Health Promoting Association

Have the members of the Posture Department obtain literature and posters on "Posture." They should study a lesson on posture and lead a class discussion. Have these members demonstrate correct standing, sitting, and reclining position. Have one member give the class some physical training exercises that are especially valuable in correcting faulty posture. If you do not have a physical training department, refer to the exercises on pages 587 ff. (Much valuable information on this subject may be obtained from the American Posture League, 1 Madison Avenue, New York.)

LESSONS I AND II

Weigh the pupils and have each one place the record of his weight on the classroom chart. Discuss the probable reasons for individual losses and gains.

LESSONS III TO VII (*Inclusive*)

The lessons on first aid which have been presented in the outlines for November, December, and January, should not be presented merely as facts, but they should be made so practical that each pupil will be able to make an immediate and intelligent response following any indication of need of first aid.

During the next four class periods we suggest that the pupils be thoroughly drilled on the important points to be remembered and that each pupil be permitted to practice the work which has been demonstrated until he is able to do it with ease. (If possible, have a Red Cross first aid teacher assist you in presenting the demonstration.)

LESSON VIII

This class period should be in charge of the Health Promoting Association.

Read to the class "A Knight without Reproach," page 533.

MARCH

SAFETY FIRST

Activities of the Health Promoting Association

Have the members of the Keeping Well Department assemble pictures and posters on the subject "The Care of the Eyes." They should prepare a lesson and lead a class discussion on this subject. Have them demonstrate the right and wrong way of sitting in relation to light when reading. Let one member be responsible for keeping the shades properly adjusted.

LESSONS I AND II

Weigh and *measure* the pupils and have each one place his record on the classroom weight chart. Discuss probable reasons for individual losses and gains.

LESSON III

Rules for safety first

We have just finished some important lessons on First Aid which will enable us to deal with the emergencies which are more or less common. Does it not seem equally as important to learn to form habits of *avoiding dangers* in order that the emergencies may never occur?

As a guide to safety first, we have outlined in the following pages the "Rules for Prevention of Accidents" prepared by the National Council of the Boy Scouts of America in coöperation with the National Safety Council.

Carelessness:[1]

More powerful than the combined armies of the universe. (During the 19 months' war with Germany 128,000 men and women and children were killed in peaceful America.)

More deadly than the mightiest of siege guns.

Relentless everywhere: in the home, on the street, in school, in the factory, at railroad crossings, on the sea. (Every forty minutes an automobile kills somebody on America's streets and highways, and during the same period injures more than two others. Ten thousand persons were killed by automobiles in 1922.)

Scattering sickness, degradation, and death.

Sparing none; rich or poor; young or old; strong or weak.

Massacring thousands upon thousands of children and wage-earners each year.

Wasting over $300,000,000 annually in the United States.

Safety at home (*safety begins at home*):

Pick up pins and needles; they cause the death of many babies.

Keep medicines out of the reach of small children.

Do not leave anything on the stairs that may cause others to trip, slip, or fall.

Do not allow scalding water to be left within the reach of a child.

Be on the "lookout" for sharp knives, scissors, etc. These should be kept out of reach of small children.

Keep rugs flat so that they will not cause serious falls.

Keep your yard free from broken glass, rusty wire, and projecting nails.

Keep matches in a closed metal receptacle and out of the reach of small children.

[1] The outline given in Lessons III to VIII is taken, with the permission of the National Council, Boy Scouts of America, from its *Handbook for Boys.*

Let dad's gun alone.

Keep all combustible articles, other than fuel for immediate use, away from the stove.

Keep curtains which are near gas jets fastened back.

See that the chimneys are examined twice a year to keep the flues clear.

Keep closets, cellars, or attics clean and free from rags and dry wood. (Sixty per cent of all fires start in these places.) See that the fire escapes and halls are kept clear of obstruction.

Do not carry a lighted match or candle into a closet.

Burn greasy or oily rags and paper immediately after using.

Empty the contents of gasoline or benzine cans on the ground away from buildings, instead of into sinks or drains.

Do not handle the electric wiring of a house. (This is dangerous and may cost considerable for repairs.)

LESSON IV

Rules for safety first (*continued*)

Safety in the street:

Cross streets at the corners and at right angles, instead of diagonally.

Do not cross the street in front of a moving vehicle.

Do not forget to look in both directions before crossing the street. (It never pays to run; you may fall.)

Be careful in crossing behind a vehicle; one may be coming in the opposite direction.

Wait for the policeman's signal, that you may not interfere with traffic.

Keep to the right in walking and in entering doorways.

Stand on the curb when waiting for a car, not in the middle of the street.

Enter a car on the right-hand side, facing toward it. Grasp the forward handle.

Get on with right hand and left foot; get off with left hand and right foot.

Get off face forward and outward, retaining firm hold of handle until feet are firmly on the ground. Watch for teams and autos when you get off. Look both ways.

Wait until the car stops when getting on or off. (The signals for stopping and starting a street car are: one bell—stop; two bells—start; three bells—stop immediately—used for emergencies.)

Do not let any part of your body project from the car window or platform.

Safety from wires:

To handle wires of any kind hanging from poles or trees or to tamper with them may cause a serious accident or death. They may be live wires.

Report broken wires to police department by telephone immediately.

Do not fly a kite near wires or use a wire for a kite string, as it may make a contact with a live wire and cause injury or death.

Do not throw stones or shoot at the glass insulators on the poles.

Do not play around arc light poles. This is dangerous.

Do not throw a string or wire over a trolley or other wire carrying a current. This is dangerous, because it is likely to produce a shock.

LESSON V

Rules for safety first (*continued*)

Safety from fires:

Know the location of fire alarm boxes.

Know how to turn in a fire alarm. After turning in an

alarm, stay at the box until the arrival of the department to tell them where the fire is.

Keep on the sidewalk when you hear a fire alarm.

Safety on railroad tracks and in railroad yards:

It is dangerous to play along railroad tracks or on railroad bridges. Trains may be expected at any time.

Keep out of railroad yards.

Keep off sidings and cars standing on tracks.

Riding on steps and platforms is dangerous, as is climbing through cars when they are standing or moving. Wait until the car stops to get on or off.

When crossing railroad tracks stop and listen; look in both directions. (A bell ringing or a moving signal arm indicates a train is approaching.)

Notify the station agent, track foreman, or some other official of the railroad whenever you discover a fire on railroad property.

To walk around lowered gates or crawl under them is dangerous.

Do not let any part of your body project from the car window or platform.

Be careful. In crossing make sure that there is no danger from a train on another track. Wait! It is dangerous to cross in face of a moving or close to the rear of a standing train or car.

LESSON VI

Rules for safety first (*continued*)

General:

Do not hitch on wagons with carts or roller skates.

Coast in the open field rather than across a much-traveled highway or across car tracks.

Do not play with sling shots, air guns, or "beebee" guns. These are dangerous playthings.

Keep away from excavations and open manholes.

Let strange dogs alone.

Do not throw sand and stones.

Use your own sanitary drinking cup in public places.

Have your little scratches and bruises taken care of at once.

(From the pupils' knowledge of first aid have them tell some of the simple methods of caring for their scratches and bruises.)

Pick up banana peels and deposit them in the proper receptacles.

Safety at school:

Assist your teacher or principal in organizing a safety patrol among the older boys of your school. The following are some of the duties of the safety patrol:

Guard street intersections near school as children come to school.

Keep children out of street at dismissal.

Help smaller children over crossings.

Post bulletins of advice to pupils for coöperation in safety work.

Make reports of accidents with suggestions for prevention.

Give notice to principal of any dangerous conditions.

Report open manholes, blocked hallways, and fire escapes, protruding nails, or injurious obstructions, broken wires of all kinds; report the building of fires in dangerous places; for example, in the alley, near the fences or buildings.

See that doors open outward.

See that half-doors are not locked.

See that doors have panic bolts; care should be exercised not to rush and cause jam at the entrance way.

LESSON VII

Rules for safety first (*continued*)

Fires and their prevention:

Fire and fire fighting costs each man, woman, and child $4.56 each year, or over $18.00 per family.

The economic waste by fire in the United States amounts to $250,000,000 yearly, not to mention loss of life. At least 50 per cent of these fires are preventable.

Fires constitute a danger as great as panics, and everyone should be equally well informed what to do in case of fire. It is the duty of everyone to know how to prevent fires.

Many fires are caused by carelessness.

Smoking is not only a bad habit, but a dangerous one as well. A lighted match may fall upon inflammable material and start a fire.

Reading in bed by the light of a lamp or candle is dangerous, for if the reader goes to sleep the bed clothing is likely to catch fire.

One may often have to dry his clothes before a fire, and if so they should be carefully watched.

Hot ashes in wooden boxes or in barrels are responsible for many fires.

In camp, dry grass should be cut away from the locality of the campfire; and not to put out a campfire on leaving a camp is criminal. Many of the great fires in our forests have been due to carelessness in this respect.

In old forests there is often a thick layer of humus (dead leaves, etc.) on top of the earth. A fire built on this may run deep in it and only appear on the surface many feet or yards away, perhaps after a long interval. In such forests you should spread a thick layer of sand or dirt on the humus and build the fire on this.

Fires also result frequently from explosions of gas or gunpowder. A room in which the odor of gas is apparent should never be entered with a light. In handling gunpowder one should have no matches in his pockets.

LESSON VIII

Rules for safety first (*continued*)

How to put out burning clothing:

If your clothing should catch fire, do not run for help, as this will fan the flames.

Lie down and roll up as tightly as possible in an overcoat, blanket, rug, or any woolen article.

If nothing can be obtained in which to wrap up, lie down and roll over slowly, at the same time beating the fire with the hands.

If another person's clothing catches fire, throw him on the ground and smother the fire with a coat, blanket, or rug. Remember that woolen material is much less inflammable than cotton.

What to do in case of fire:

A fire can usually be put out very easily when it starts, and here is an occasion when one can show his presence of mind and coolness. At first a few buckets of water or blankets or woolen clothing thrown upon a fire will smother it. Sand, ashes, or dirt, or even flour, will have the same effect.

If one discovers a building to be on fire, he should sound the alarms for the fire department at once. All doors should be kept closed so as to prevent draughts. Help the firemen in the way they direct; do not attempt to take their place, as you may do far more harm than good, and make much trouble and danger for everyone. If the firemen are not at hand, and it is absolutely necessary in order to save life that

you should enter the building, crawl downstairs backward if the air is bad, close the window or door after you, and leave some responsible person to guard it, so it will not be opened and cause a draught. In searching for people, go to the top floor and walk down, examining each room as carefully as possible. If necessary to get air while making the search, close the door of the room, open a window, and stick the head out until a few breaths can be obtained. Afterward close the window to prevent a draught. If doors are found locked and you suspect people are asleep inside, pound on doors to arouse them. If this produces no results, you will have to break down the door quickly. While searching through a burning building it will be best to tie a wet handkerchief or cloth over the nose and mouth. You will get a little air from the water.

Remember the air within six inches of the floor is free from smoke, so when you have difficulty in breathing, crawl along the floor, with the head low, dragging any one you have rescued behind you.

References

Boy Scouts of America, *The Official Handbook for Boys.* The Boy Scouts of America, 200 Fifth Avenue, New York.

Winslow, *Healthy Living,* chapter xxxi, page 356. Charles E. Merrill Company, 440 Fourth Avenue, New York.

Pamphlets:

National Safety Council, *Accident Prevention.* 108 East Ohio Street, Chicago, Illinois.

United States Bureau of Education, "Safeguarding the Home against Fires." Washington, D. C.

APRIL

REVIEW

Activities of the Health Promoting Association

Have the president of the association name a committee to assemble posters and literature on "Cheerfulness" to place on the health table. Let this committee study a lesson and lead a class discussion on this subject. Each member of the committee should tell to the class a story which he thinks indicates a keen sense of humor.

LESSONS I AND II

Weigh the pupils and have each one place the record of his weight on the classroom weight chart. Discuss probable reasons for individual losses and gains.

LESSONS III, IV, AND V

Have each pupil make a list of at least five subjects relating to the work on hygiene which has been covered during the school year. Select from the subjects offered at least ten of the best ones, and place them on the board. Allow each pupil to select a subject and write a theme of at least five hundred words.

Suggested Subjects

The Value of a Health Department to a City
How the Citizens of a City May Be of Value to the Health Department

Our Health Responsibility toward Our Neighbor
Why a Good Citizen Should Know First Aid and Safety First
How My Knowledge of Personal and Community Hygiene Will Help Me through Life

LESSONS VI AND VII

Have a class debate on the subject: "*Resolved*, That a knowledge of the rules of safety first is more beneficial than a knowledge of the principles of first aid."

LESSON VIII

This class period should be in charge of the Health Promoting Association.

MAY

A PAGEANT

Activities of the Health Promoting Association

Have the president appoint a committee to collect the health chore folders and evaluate them. Let this committee decide on some award to be given to the pupils who have kept the greatest number of health chores. Pass out new folders and encourage the pupils to keep their chores during the summer.

Study the playlet "A Pageant in the Interest of Good Health." Assign parts for dramatization. Present this play on Patron's Day or on an occasion when the parents may be given an opportunity to see it.

A Pageant in the Interest of Good Health

IN FIVE SCENES

This health pageant was written and produced by the seventh A and eighth-grade boys and girls of Bird School, under the leadership of Miss Marian Collinson, hygiene teacher, and Miss Prudence Nicholas, eighth-grade teacher.

Synopsis: This is the story of a boy who sees no value in keeping a health chart. He goes to sleep and dreams that the Goddess of Health and her band visit him, and advise him of the dangers of life if he makes the journey without their help. He refuses their assistance and starts out alone. He enters the Valley of Illness. Here he is assailed by the germs of Toothache, Headache, Bad Colds, Neglect, Flu, Pneumonia, and Tuberculosis in the order named. He is finally

overcome. Then he sees other children passing through the valley and assailed by the same germs. They, however, call for help, whereupon the various helpers of the Goddess of Health, Cleanliness, Sunshine, Fresh Air, etc., come to their assistance and kill the attacking germ army. Then he is tried by "The World" as Judge, and found guilty of breaking the Laws of Health. He is found guilty and condemned to a lifetime of suffering as a direct result of his own negligence. The Jury, composed of Civic Duty, Public Opinion, Science, etc., makes short work of his case. He awakens from his dream, remembers its lessons, changes his mind, and asks his mother's assistance in doing his chores.

The nucleus of this pageant was the scene in which the Goddess of Health asks her band what they can do for the health of the individual. This was a purely class exercise devised by the teacher to create more interest in the Health Crusade. The speeches are the children's own work and appear as they were written. Afterward, however, the opening scene showing the boy and his mother, scene iii, the Valley of Illness, scene iv, the Trial, and scene v, the Awakening, were added, and the whole given for the benefit of other children in the school. There was no thought of producing the pageant in public, so, of course, it is not a finished, polished production. It seems a valuable school exercise, as it touched the teaching of hygiene, civics, English, public speaking, and originality. The Goddess and her band made 100 per cent record in the Health Crusade Contest, receiving both state and national banners.

This pageant requires about fifty children; more could be used, or perhaps a smaller number. It seemed well to interest as many as possible.

Signs were made for the Goddess and her band, for the germs, and for the jury. These were on stiff paper or card-

board and made by one of the boys with a rubber stamping outfit.

Any room with two exits will do. No scenery is necessary. The same chair may be used in four scenes as the boy's chair, the Goddess' throne, the Judge's platform, and place for the wash basin, etc.

The costumes were not elaborate. In fact, they were odds and ends, picked up from former dress-up plays. Some need no special costume.

MOTHER, BOY, JURY, and LAYWERS required just ordinary clothes.

GODDESS OF HEALTH—Anything to show her position.

JUDGE—College gown, wig made from muslin covered with ten cents worth of absorbent cotton, glasses, etc.

GERMS—The germs were told to make up as horribly as possible and above all things to be original. Some had tails, some horns, some ragged clothes, etc. All were painted with water color or grease paint. One had a question mark on his forehead, the dot being on the end of his nose. He had quotation marks on his cheeks, while exclamation point and other marks of punctuation adorned the rest of his face. Some had black eyes, some red, skull and crossbones, etc. Some had long fingers made of muslin and stuffed with sawdust. These they used to point at their victims or to beckon them on. The germs had more fun than any other group in the show.

GENERAL IGNORANCE—General Ignorance wore a German officer's helmet, one found on a battlefield of France. He said he could think of no better use for it.

SCENE i. *A bedroom. Any boy and his mother.*
SCENE ii. *The Goddess of Health and her band.*
SCENE iii. *The Dream. The Valley of Illness.*
SCENE iv. *The Trial.*
SCENE v. *The Awakening.*

SCENE I

A room with a single bed at right, two exits if possible, at right and left sides in the rear wall. BOY *in pajamas is seen sitting in a chair reading.* MOTHER *enters.*

MOTHER: Come now, my son, it is time to go to bed.

BOY: Just a little longer, please; one more chapter.

MOTHER: No, it is time to go to bed. [*Picks up coat from back of chair, and finds health chart in pocket.*] Oh, what is this? May I see it?

BOY: Oh, it is just another idea the teacher has to keep us busy, I guess. But you needn't worry, Mother; I'm not going to pay any attention to it!

Mother (*reads health chart; reads several chores as, "Health Crusader"; "I washed my hands before each meal today"; "I played out of doors more than thirty mintues today," etc.*): Oh! this is wonderful!

[BOY *arises,* MOTHER *sits down in a chair.*]

BOY: Yes; but, Mother, you don't seem to realize that you would have to keep my score. Every night and every night there it would be, and you would have to do the work. I am not *for* this thing, Mother, because it would *waste* so much of your time.

MOTHER: *Waste* my time? Son, a mother's time is never wasted when it is spent for the good of her children. I am never too tired to help you form good habits. You will never know the hours I have spent wishing, planning, and praying that I might find a way to help you become a strong, clean man. Here's our chance; we'll work together. Here is our slogan: "You do the chores, and I'll keep the scores."

BOY: Aw, let it go. I'm a healthy kid.

MOTHER: I have been worried lately on several different mornings when you slipped out for school before I had a chance to inspect your ears, your hands, and your clothing. If you

were untidy, I wondered what people would think. "Like mother, like son, is a saying so true, the world will judge largely of mother by you."

BOY: I never thought of that before, Mother, but I am sleepy now; can't we talk it over tomorrow? [MOTHER *approaches bed,* BOY *gets in, pulls up covers.*]

MOTHER: Yes, son, tomorrow. Hurry off to sleep now or you will not get your ten hours of sleep tonight. [*Tucks him in.*] Good night! Dream about it and we will talk it over in the morning.

[MOTHER *leaves by exit at right back stage.* BOY *sleeps. Curtain drawn for an instant. Bed pushed aside to make room for* GODDESS *and her train of helpers.* (*If there is no curtain,* GODDESS *and train enter after short pause.*)]

SCENE II

Same room. BOY *asleep. All enter from left back stage. Chair or box in back center for* GODDESS *to stand on. A simple throne is better but not at all necessary.. The helpers of the* GODDESS OF HEALTH *enter slowly, one by one, in order named, advance quietly to center front, stop an instant with some appropriate gesture so that the audience can read the label pinned on the breast, pass by the bed, look at the boy, then arrange themselves across the back of stage.*

1. TEMPERANCE (boy), ordinary clothes, clean and neat.
2. SUNSHINE (girl who can dance), light yellow costume if possible, scarf and veil to wave gracefully and frequently.
3. PURE WATER (girl), carries glass of water.
4. CHEERFULNESS (girl), runs in lightly, smiling.
5. CORRECT POSTURE (boy), great care in standing well.
6. PLAY (girl), jumping rope, or other plaything. Jumps rope as she comes in.
7. SLEEP (boy), nightshirt, yawns continually during scene.
8. FRESH AIR (girl), light airy costume, soft veil to wave.
9. CLEANLINESS (girl), white apron and cap; carries toothbrush and soap.
10. EXERCISE (boy), gym suit; displays muscle frequently.
11. HAPPINESS (girl), ordinary clothing, quietly contented.
12. PURPOSE OF WORK (girl), carries a book which she displays often.
13. GODDESS OF HEALTH (girl).

FIG. 49. THE HEALTH PAGEANT
Scene ii, Goddess of Health and her band

GODDESS OF HEALTH *comes in, bows, walks backward to chair or throne, and ascends same. The line of helpers forms a semicircle around her, still allowing the bed and sleeping* BOY *to be seen by audience. All the helpers must, when attention is called to them, make the gestures and movements peculiar to their characters. This will be often, and serves to break the monotony of the waits while the speeches are being made.*

[BOY *apparently awakens, sits on side of bed, and gazes curiously at the array.*]

BOY: Who are you, and what do you want?

GODDESS: You see in me the Goddess of Health. Who I am and what I do no one knows who does not agree to obey me in all things. With my train I go down the pathway of life, giving life and energy, making work easy, and play joyful. On the other hand, if you decide to do without me, casting me aside and choosing what you think is the more pleasant way of living, you will fall by the wayside. My helpers are more than willing to go, yes, eager to go. Now it is left for *you* to decide whether or not you want them.

[BOY *walks slowly across stage, looking doubtfully at band; shakes head and then stands at left front of stage as speeches are made.*]

GODDESS: What can you do for this boy, Cheerfulness?

[CHEERFULNESS *goes over toward* BOY, *stands near center stage.*]

CHEERFULNESS: I am Cheerfulness. What would the sick people do without me? They would give up in despair, but I give them courage. It has been through me that many sick people have been made well. I take sad thoughts from the mind and in their places put cheerful ones which are bound to bring friends. If you do not have a clean mind, I cannot linger, for dark thoughts chase me away. When going on your long journey, I promise never to forsake you if, when you need me, you call me. [*Goes back to place.*]

[BOY *shakes head, paces back and forward doubtfully.*]

GODDESS: Have you something to say to this boy, Temperance?

TEMPERANCE (*advances*): What you eat and what you drink play one of the most important parts in your health. I represent temperance along these lines. Little boy, if you eat and drink too much, this is what will happen. You will become overfleshy, which is injurious to your health and which makes you lazy and careless in your habits. It taxes your digestive organs to such an extent that they soon wear out and will not serve you properly as you grow older. Eat until your hunger is satisfied and then stop. Nothing is so good for you as pure water. No other drink really satisfies as does this drink. So drink often and freely of her. If you follow my advice, I have no fear as to the outcome of your journey down the pathway of life.

[BOY *does some doubtful shaking of head and pacing to and fro.*]

GODDESS: What have you to say, Pure Water?

PURE WATER (*advances*): It is just in late years that people have come to realize my value, so you may need to be introduced to me. I am Pure Water. In this day and age there is little excuse for persons who do not use me daily, for I am easy to obtain. Drink of me often, for I give you bright eyes and rosy cheeks and I satisfy thirst as no other drink does. I also make you clean of body and of mind and am a gallant defender against my enemies, dirt and disease. So take me with you, and I will be your true friend.

GODDESS: What can you add to this boy's life, Correct Posture?

CORRECT POSTURE (*advances*): I am the Spirit of Correct Posture. I bring to you good health and a straight body. I help you to guard against disease, and keep your bodily organs in place. I aid you in getting good positions and keeping them. I am one of the required things in the Army and Navy.

If you take me with you, I will help you fight your battles of life.

GODDESS: Can you help this boy, Play?

PLAY (*runs in jumping rope*): If you want to be strong and healthy when you go down the pathway of life, you must have me along. I help you to get fresh air, happiness, and sunshine. But you must "work while you work and play while you play." In summer you find me in the cool ponds, the parks, and the playgrounds, where the children are making the most of the merry, sunny days. In winter you find me everywhere—in the ponds, hills, and school grounds—where the boys and girls romp and play, deriving from me bright eyes, rosy cheeks, and strong bodies. It is very important to have me along, for all work and no play makes Jack a dull boy.

GODDESS: What advice can you offer, Sleep?

SLEEP (*advances yawning*): I am Sleep, and without me you could not live. I make you strong and healthy and clear of mind. Look at our soldier boys. They took plenty of sleep, and that is one way we won the war. So take me with you down the pathway of life and you will succeed, but if you don't you will fall by the wayside just as many other boys and girls have done before you. [*Yawns continually.*]

GODDESS: What can you say to help this boy, Cleanliness.

CLEANLINESS (*with toothbrush and soap in hand*): I am Cleanliness, the greatest of all virtues next to Godliness. Without me people become broken in health, dirty, and lazy. Have you clean teeth? [BOY *grows nervous.*] Do you take frequent baths? [BOY *examines hands, etc.*] Do you inspect your clothing to see if it is soiled? [BOY *looks at clothing.*] These are some of the things about which I can help you, if you will but call on me. If you do not call on me, you will have many sicknesses, such as consumption, influenza, and other terrible

diseases. People who follow my rules of cleanliness are generally rosy-cheeked, bright-eyed, and happy, but without me they fall by the wayside on the journey of life, and it will be too late for me to help them then.

GODDESS: Sunshine!

[*At this point the* SUNSHINE *girl dances a pretty little group of fancy steps to a lively waltz tune, then takes her place to await her speech later on.* BOY *seems fascinated trying to follow* SUNSHINE'S *movements with his eyes.*]

GODDESS: Tell this boy about yourself, Happiness!

HAPPINESS (*advances*): I am Happiness. What would the world do without my sister, Cheerfulness, and me? If, when you start on your long journey, you keep well and happy, sickness or evil spirits will never come your way. If you help those who are sick by taking them things they like or want, and if you help the old and poor to get along the path, too, you will be more happy and at the same time make others happy. If you will not look on the unpleasant side of life, but will always be looking for the bright and happy side of everything, you will always be happy in your heart.

GODDESS: This boy needs you, Fresh Air.

FRESH AIR (*waves scarf or veil*): Every day, every hour, every minute, you must have me, for without me you could never live. Without me your mind would be dull and your spirits lag. I bring you rosy cheeks, a healthy appetite, and a clear mind. Into the rooms where boys and girls study, I come and bring fresh air. This makes them feel like working. Into the factories where hundreds of men and women work daily, I come also. Into the rooms where little children sleep at night, I enter if I find their windows open. If you want me, prepare a way for me to come, for if you do not I cannot enter and make you strong and healthy.

GODDESS: What can you do for this boy, Exercise?

EXERCISE (*advances*): I am Exercise, one of the most necessary things for the development of the body. History teaches us that the power of a nation very largely depends upon the physical fitness and vigor of the individual citizens, which is all obtained through me. What was it that at one time caused Greece to be the ruler of the world? It was nothing else but her devotion to me. And what in turn caused her downfall? It was her disregard of me. But you need not go back that far in history to see what I do for you, but consider the individuals of today. Look at our soldier boys. Is it not those with the robust frames and hardened muscles that have so gallantly fought our battles? And was it not I who helped make such fine men of them? To develop them physically, did the government have them lead a life of idleness? No! It was Exercise. Exercise from morning until night. Make me a habit, you who know me little; and you who do not know me at all, cultivate my acquaintance. Never fail to use me daily, for if a nation fell from neglect of me, surely *you* are not strong enough to do without me.

GODDESS: Can you help this boy, Sunshine?

SUNSHINE: Dear Goddess of Health, who needs to be introduced to me? All know me, for nearly every day I come and bring light, warmth, and health. Without me all would be dark and gloomy, for I chase away millions of germs every day. They cannot live when I throw my warm light upon them. They shrivel and die, for they cannot resist the healthful, life-giving qualities of my rays. Just as my sunbeams transform the flower buds into wonderful blossoms of beauty, they also change a sick, puny boy or girl into a handsome, radiant picture of health, ready for work and ready for play. Goddess of Health, I appeal to you to help spread this gospel. May every boy and girl know that his and her life is filled with sunshine in order that the germs of consumption, diphtheria, and

FIG. 50. THE HEALTH PAGEANT
Scene iii, the dream

influenza may all be killed. Oh, why doesn't everyone open wide his windows and doors and build light, airy houses, so that the wonderful, marvelous sunshine may enter and scatter her brilliant rays in every nook and corner, and bring with her light, warmth, and health?

GODDESS: What can you do for this boy, Purpose of Work?

PURPOSE OF WORK: One must always have an ideal and purpose in his work, otherwise his work will be of no use to the world. I represent this ideal and purpose. My service to this boy is unlimited, for without me all attempts at work will prove unsuccessful. I bring to him confidence in himself, and ambition, and, through these things, worldly goods. If he does not make use of me in his journey, he will indeed fail, for he needs me to push him forward, ever onward, until he reaches the highest ideal for which he has striven.

[BOY *paces back and forth apparently pondering, then he straightens up and answers the* GODDESS.]

BOY: I don't need you or any of your helpers along on my journey. It would be such a bother to have so many things around me all the while, and I wouldn't get so many pleasures out of life. So I prefer to go alone. [*Walks out at left exit.*]

[*The* GODDESS *and her band slowly follow him out, arms extended as if beseeching him to take them along. During his speech they are astounded and amazed that he declines their efforts and advice.*]

[CURTAIN]

[*If there is no curtain, some one must step out on stage to arrange bed and sign.*]

SCENE III

Push bed aside. Put up sign reading "Valley of Illness." Stage empty when curtain goes up. Voices heard, together with confusion of feet. GENERAL IGNORANCE *enters with army of germs. He is assisted by*

CORPORAL FILTH. *He has a satisfied air and pays little attention to his straggling army marching behind him in twos. After marching across the stage in confusion,* GENERAL IGNORANCE *calls, "Halt! At ease!" The germs then face the audience, making hideous grimaces and manipulating their hands in a horrible manner.* GENERAL IGNORANCE *then marches them around the stage once. Then a sound is heard. They listen. It is the* BOY *whistling. The germs scramble back and crouch across the back of stage. (Each germ has a label pinned across his breast telling what disease he represents.)*

The BOY *comes in at left whistling. He walks slowly along. The two* TOOTHACHE *germs rise slowly and threateningly and pounce upon him. He screams, holds his jaw, and pushes them away. He does not call for help. As he walks back across the stage, he is attacked by the two* HEADACHE *germs. He fights them and pushes them away; then in turn the two* BAD COLDS, *the* NEGLECT, *then* FLU, PNEUMONIA, *and finally* TUBERCULOSIS. *As each two attack him he fights desperately, each time, however, appearing a little weaker than before. He puts up a strong fight against* TUBERCULOSIS, *but they finally down him completely and he staggers to the side of the stage. The germs triumphantly shake hands and pat each other on the back, delighted with their success.*

Then a little girl enters the Valley of Illness from the right entrance. As she walks through the Valley of Illness, the two TOOTHACHE *germs are slipping up behind her. She turns when she reaches the center and sees them. They try to seize her, but she screams for help. "Help, help me!" she screams. Then from the left* CLEANLINESS *comes in, waves her toothbrush over the offending germs, and they fall dead. Another little girl enters at right. The* HEADACHE *germs try to seize her. She screams for help, and* SLEEP *enters at left and yawns at the two germs, who also fall dead. Yet another girl enters at right; then the germs who remain arise slowly and all advance toward her, making most threatening gestures and grimaces.* BAD COLDS, NEGLECT, FLU, PNEUMONIA, *and* TUBERCULOSIS, *all attempt to seize her. She screams and screams for help, and* SUNSHINE, TEMPERANCE, FRESH AIR, *and* PURE WATER *come in waving their veils, etc., over the stubborn germs, who gradually die and fall in heaps upon the floor. All this time the* BOY *sees and understands, but it is too late.*

[CURTAIN]

[*In case there is no curtain,* GENERAL IGNORANCE, *after* CLEANLINESS, *etc., have stepped off stage, half rises, looks about and sneaks away, followed by the germs, scrambling, crawling, and dragging themselves away. The* BOY *remains on stage, near front.*]

SCENE IV—THE TRIAL

At left BAILIFF *enters. After him comes the* JURY, *one by one, each labeled with a sign pinned across his breast. Each advances to front of stage before taking his place, so the audience can understand what he represents.* (*May be boys or girls or both.*)

1. CIVIC DUTY
2. COMMON SENSE
3. JUDGMENT
4. ORDINARY CITIZEN
5. PUBLIC OPINION
6. GOOD MORALS
7. CIVILIZATION
8. EFFICIENCY
9. EXPERIENCE
10. PUBLIC WELFARE
11. PERSONAL OBLIGATION
12. SCIENCE

JURY *arranges itself on left of center in two rows.*

On the right of the center the following arrange themselves, coming in from right entrance:

1. GODDESS OF HEALTH
2. CLEANLINESS
3, 4. PURE WATER, SLEEP, *or any other helpers of* GODDESS OF HEALTH
5. THE COUNSEL FOR THE DEFENSE
6. THE COUNSEL FOR THE PROSECUTION
7. GENERAL IGNORANCE
8. CORPORAL FILTH

Finally from the left JUDGE *enters, wearing gown and wig. He has a label marked "The World." He takes his place at the center of the back of the stage with one group on each side of him.*

JUDGE (*raps for order*): The court will come to order. Bring in the prisoner.

[BAILIFF *brings* BOY *in.* BOY *is frightened.*]

JUDGE: Read the charges.

BAILIFF: Your honor, this boy is charged with breaking the laws of health. He was arrested in the Valley of Illness for obstructing the pathway of life and for being a public nuisance.

FIG. 51. THE HEALTH PAGEANT
Scene iv, the trial

JUDGE: Proceed with the case.

LAWYER FOR THE PROSECUTION: Your Honor, this boy comes of intelligent parents. He has educational advantages. He is well known; yet, despite these facts, he has rudely and deliberately refused the suggestions of the Goddess of Health and her band, for whose advice many would give their fortunes. He has disregarded and thrown aside their hints to health and thereby broken the law. My witnesses will prove my statements. [*Witnesses show approval.*]

JUDGE: Counsel for the Defense.

COUNSEL FOR THE DEFENSE (*whining voice*): Your Honor, hasn't this boy a right to do as he pleases in this great free country of ours? He is only exercising his natural rights. You can't condemn the boy for that. He isn't hurting anybody else. [IGNORANCE *and* FILTH *agree and make a silly display of their approval.*]

JUDGE: Members of the jury, ever since time began, the world has judged a man by what he makes of himself. Before you is a self-made boy. He is feeble, sickly, and weak—a rich reward, friends, for the life he has led. In this modern day, we who are wise listen to the voices of science and common sense, as they try to gain our attention to the big events of the day. This boy has listened only to himself. Think how valuable he could be to his country if he were only strong and well! This is a plain case, friends, and should require little time on your part. The jury will adjourn.

[BAILIFF *and* JURY *adjourn. Others talk in groups.* JURY *returns almost immediately.*]

BAILIFF: Your Honor, the jury finds the prisoner at the bar guilty!

JUDGE: The verdict is "Guilty." I condemn this boy to suffer a lifetime of pain and discomfort as a direct result of

his own misdeeds. Remove the prisoner. [BAILIFF *takes the prisoner out.*] The court is adjourned.

[CURTAIN *as the actors begin to leave by both exits. If there is no curtain,* IGNORANCE *and* FILTH *pull the bed near the center of the stage and the* BAILIFF *puts the boy into it. The* JURY, *etc., then leave the stage.*]

SCENE V—THE AWAKENING

Bed pulled out again in plain view. Curtain rises and shows BOY *sleeping peacefully. He awakens, stretches, smiles, and remembers his dream. As he is sitting on the edge of the bed smiling,* CLEANLINESS *comes in silently at right, holds out toothbrush, and goes on out at left.* BOY *jumps up, goes to wash basin, washes face, neck, and ears, brushes teeth, cleans nails.*

FRESH AIR *enters and runs lightly out; the* BOY *takes his ten deep breaths.*
PURE WATER *runs past and he drinks his glass of water.*
CHEERFULNESS *runs quickly by and he laughs aloud.*
Then his mother enters at right.

MOTHER: Good morning, son.

BOY: Good morning, Mother. [*Looks dreamily about.*] Mother, I have been on a long journey. [*Laughs.*] No, I haven't either; it was all a dream. [*Finds health chart.*] Here, Mother, please write my name and fill out 2, 6, and 8 and tonight there will be no empty spaces left.

[MOTHER *pats him on head and smiles as curtain falls. If there is no curtain, they walk out together.*]

—By courtesy of the Iowa Tuberculosis Association, 518 Century Building, Des Moines, Iowa.

THE SUPPLEMENT

WEIGHT–HEIGHT–AGE TABLES

FOR BOYS OF SCHOOL AGE[1]

Ht. (In.)	Av. Wt. For Ht. (Lbs.)	5 YR.	6 YR.	7 YR.	8 YR.	9 YR.	10 YR.	11 YR.	12 YR.	13 YR.	14 YR.	15 YR.	16 YR.	17 YR.	18 YR.	19 YR.	Ht. (In.)
38	34	34	34*														38
39	35	35	35														39
40	36	36	36*														40
41	38	38	38	38*													41
42	39	39	39	39*	39*												42
43	41	41	41	41*	41*												43
44	44	44	44	44	44*												44
45	46	46	46	46	46*	46*											45
46	48	47*	48	48	48	48*											46
47	50	49*	50	50	50	50*	50*										47
48	53		52	53	53	53	53*										48
49	55		55	55	55	55	55	55*									49
50	58		57*	58	58	58	58	58*	58*								50
51	61			61	61	61	61	61	61*								51
52	64			63	64	64	64	64	64	64*							52
53	68			66*	67	67	67	67	68	68*							53
54	71				70	70	70	70	71	71	72*						54
55	74				72*	72	73	73	74	74	74*						55
56	78				75*	76	77	77	77	78	78	80*					56
57	82					79*	80	81	81	82	83	83*					57
58	85					83*	84	84	85	85	86	87					58
59	89						87	88	89	89	90	90	90				59
60	94						91*	92	92	93	94	95	96				60
61	99							95	96	97	99	100	103	106*			61
62	104							100*	101	102	103	104	107	111	116*		62
63	111							105*	106	107	108	110	113	118	123	127*	63
64	117								109	111	113	115	117	121	126	130*	64
65	123								114*	117	118	120	122	127	131	134	65
66	129									119	122	125	128	132	136	139	66
67	133									124*	128	130	134	136	139	142	67
68	139										134	134	137	141	143	147	68
69	144										137	139	143	146	149	152	69
70	147										143	144	145	148	151	155	70
71	152										148*	150	151	152	154	159	71
72	157											153	155	156	158	163	72
73	163											157*	160	162	164	167	73
74	169											160*	164	168	170	171	74

Age —years.....		6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Av. Ht. (In.)	Short...	43	45	47	49	51	53	54	56	58	60	62	64	65	65	....
	Medium	46	48	50	52	54	56	58	60	62	65	67	68	69	69	....
	Tall....	49	51	53	55	57	59	61	64	67	70	72	72	73	73	....
Av. An. Gain (Lbs.)	Short...	3	4	5	5	5	4	8	9	11	14	13	7	3		....
	Medium	4	5	6	6	6	7	9	11	15	11	8	4	3		....
	Tall.....	5	7	7	7	7	8	12	16	11	9	7	3	4		....

[1] Age is taken at the nearest birthday; height at the nearest inch; and weight at the nearest pound. A child is considered six years old at any time between five and one-half and six and one-half years. The figures not starred represent exact averages in round numbers. The starred figures represent smoothed or interpolated values.

ABOUT WHAT A BOY SHOULD GAIN EACH MONTH

Age 5 to 8 ..... 6 oz.
Age 8 to 12 ..... 8 oz.
Age 12 to 16 ..... 16 oz.
Age 16 to 18 ..... 8 oz.

FOR GIRLS OF SCHOOL AGE[1]

Ht. (In.)	Av. Wt. for Ht. (Lbs.)	5 yr.	6 yr.	7 yr.	8 yr.	9 yr.	10 yr.	11 yr.	12 yr.	13 yr.	14 yr.	15 yr.	16 yr.	17 yr.	18 yr.	Ht. (In.)
38	33	33	33													38
39	34	34	34													39
40	36	36	36	36*												40
41	37	37	37	37*												41
42	39	39	39	39*												42
43	41	41	41	41	41*											43
44	42	42	42	42	42*											44
45	45	45	45	45	45	45*										45
46	47	47*	47	47	48	48*										46
47	50	49*	50	50	50	50	50*									47
48	52		52	52	52	52	53*	53*								48
49	55		54	54	55	55	56	56*								49
50	58		56*	56	57	58	59	61	62*							50
51	61			59	60	61	61	63	65							51
52	64			63*	64	64	64	65	67							52
53	68			65*	67	67	68	68	69	71*						53
54	71				69	70	70	71	71	73*						54
55	75				72*	74	74	74	75	77	78*					55
56	79					76	78	78	79	81	83*					56
57	84					80*	82	82	82	84	88	92*				57
58	89						84	86	86	88	93	96*	101*			58
59	95						87	90	90	92	96	100	103*	104*		59
60	101						91*	95	95	97	101	105	108	109	111*	60
61	108							99	100	101	105	108	112	113	116	61
62	114							104*	105	106	109	113	115	117	118	62
63	118								110	110	112	116	117	119	120	63
64	121								114*	115	117	119	120	122	123	64
65	125								115*	120	121	122	123	125	126	65
66	129									124	124	125	128	129	130	66
67	133									128*	130	131	133	133	135	67
68	138									131*	133	135	136	138	138	68
69	142										135*	137*	138*	140*	142*	69
70	144										136*	138*	140*	142*	144*	70
71	145										138*	140*	142*	144*	145*	71

Age — years		6	7	8	9	10	11	12	13	14	15	16	17	18	
Av. Ht. (In.)	Short	43	45	47	49	50	52	54	57	59	60	61	61	61	....
	Medium	45	47	50	52	54	56	58	60	62	63	64	64	64	....
	Tall	47	50	53	55	57	59	62	64	66	66	67	67	67	....
Av. An. Gain (Lbs.)	Short	4	4	4	5	6	6	10	13	10	7	2	1		....
	Medium	5	5	6	7	8	10	13	10	6	4	3	1		....
	Tall	6	8	8	9	11	13	9	8	4	4	1	1		....

[1] The table on page 487 and this table were prepared by Bird T. Baldwin, Ph. D., Iowa Child Welfare Research Station, State University of Iowa, and Thomas D. Wood, M. D., Columbia University, New York.

ABOUT WHAT A GIRL SHOULD GAIN EACH MONTH

5 to 8 ..... 6 oz.
8 to 11 ..... 8 oz.
11 to 14 ..... 12 oz.
14 to 16 ..... 8 oz.
16 to 18 ..... 4 oz.

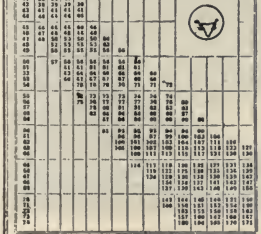
CLASSROOM WEIGHT RECORD

School Roosevelt — Rose Brown, Teacher

Grade 1A — Room 10

	NAME	Age	Height	Normal Weight	ACTUAL WEIGHT Sept.	Oct.	Nov.	Dec.	Jan.	Age	Height	Normal Weight	ACTUAL WEIGHT Feb.	Mar.	Apr.	May	June
1	Peter Bonacco	7	44	44		46	52	54	55	8	47	50	55	55	56	56	58
2	Edward Carey	6	44	44		38½	39	38½	39½	7	45	46	39½	39½	40	41	43
3	Patsy Colombo	7	41	38		37½	43	41½	42	8	44	44	43½	43	43	44	45
4	John Nano	6	44	44		43	45	44	45	7	45	46	44½	45	44	45	46
5	Joe Cuilla	7	41	38		39½	44	45	46	8	43	41	47	45	47	46	48
6	Albert Kugler	6	44	44		42	44	43	43	7	44	44	45	44	43	42	41
7	Frank Levis	6	42	48		40½	42	43	43	7	47	50	43½	43	44	44	46
8	James McAtee	6	44	44		44	44	44	45	7	45	46	46½	46	48	48½	49
9	Vincent Mangaluzo	6	45	46		45	47	47	48	7	46	48	47	48	48	47	48
10	Marvin Mitchell	6	44	44		46	49	48	49	7	45	46	49	50	51	52	53
11	Louis Puberti	6	45	46		45	46	46	47	7	46	48	48	47	47	48	49
12	Arnold Sirian	6	48	52		53	52	51	50	7	49	55	50	49	48	48	47
13	Veto Tocco	6	43	41		38	41	39	40	7	44	44	42	41	40	41	42
14	Charles Claasser	6	44	44		41	42	42	43	7	45	46	44½	43	43½	43	42
15	Lena Balsano	6	42	39		41½	43	44	44	7	43	41	44	43	43	43	44
16	Marie Kaline	6	45	45		43	41	42	42	7	45	45	41	42	42	44	45
17	Mary Brown	6	41	37		40	41	41	42	7	42	39	42	42	40	41	40
18	Maidell Parker	6	45	45		42	43	43	44	7	46	47	45	44	45	45	46
19	Teresa Procopio	6	44	42		53	56	57	60	7	46	47	61	61	62	62½	63
20	Rose Scalzo	6	42	39		43	44	43	45	7	44	42	45	46	46	46	48
21	Mildred Jones	6	42	39		41	42	43	42	7	43	41	43	42	43	44	45
22	Anna Vitro	6	41	37		37	40	40	40	7	42	39	40	39½	39	40	39
23	Edith Williams	7	47	50		47	49	48	48	8	48	52	49	48	48	48	50
24	Louise Zarubo	6	45	46		43	45	45	45	7	46	47	45	46	45	47	47
25	Rose Mary Bennett	6	46	47		44½	46	46	46	7	46	47	46	45	46	46½	47
26	James Peterson	5	47	49		50	49	47	48	6	47	50	48	47½	48	49	50
27																	

WEIGHT–HEIGHT–AGE TABLE FOR BOYS



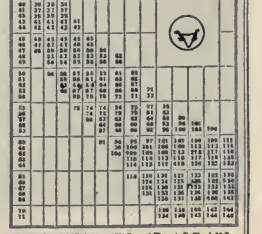
Prepared by Bird T. Baldwin, Ph.D., and Thomas D. Wood, M.D.

HOW TO USE THESE TABLES

1. TAKE THE HEIGHT FIRST. Nail an accurate measure on the wall. Two yardsticks, a new tape measure, or a drawn scale will serve. Let the child stand, without shoes, feet against the wall, with heels, shoulders, and head touching the wall, and place a right-angled piece of wood (a chalk box will answer) firmly over his head and against the measuring scale.
2. WHAT IS THE CHILD'S AGE? Take the nearest birthday.
3. THEN CONSULT THE CHART FOR THE PROPER WEIGHT FOR THIS CHILD'S AGE AND HEIGHT. First find the height in the left column and follow across the chart to the appropriate age column. The figures so found is what this child should weigh.
4. NOW WEIGH THE CHILD. Have the child in indoor clothing but without shoes and in the CENTER of the scale platform. Teach the child to weigh himself, but in the monthly weighings the teacher should do the weighing.
5. NEXT, THE RECORD. Enter the weight on the classroom weight record. State the monthly weight on the monthly report card. Use one record for each section of the class and pass on with the section when promoted.
6. SINCE THIS CHART IS CHIEFLY FOR ITS EDUCATIONAL VALUE, THE HEALTH LESSON IS THE MOST IMPORTANT PART OF THE PROCEDURE. Emphasize the need of weight gains each month. Study foods and their relation to growth. Study health habits and their effect upon the weight curve.

These new Weight-Height-Age Tables represent a large group of presumably healthy children, most of whom are native born. The figures are believed to be the most accurate available.

WEIGHT–HEIGHT–AGE TABLE FOR GIRLS



Prepared by Bird T. Baldwin, Ph.D., and Thomas D. Wood, M.D.

Published by DEPARTMENT OF THE INTERIOR, BUREAU OF EDUCATION, Washington, D. C.

FIG. 52. CLASSROOM WEIGHT CHART

FIG. 53. WEIGHING AND MEASURING

FIG. 54. MONTHLY WEIGHT RECORD

MALNUTRITION[1]

Malnutrition is a condition of undernourishment or underweight. It is seen in boys and girls at any period after infancy or in childhood.

It is an important condition, very often neglected, and when neglected may lead to serious consequences. It may lay the foundation for poor physical development or ill health in adult life or may lead to some serious disease like tuberculosis.

How to recognize malnutrition. Children suffering from malnutrition are not only much below normal weight for height, but they gain much more slowly than they should. At the ages of six to ten years, when a healthy child gains four or five pounds a year, the malnourished child may gain only one or two pounds, or even none at all; from twelve to sixteen years, when healthy children should gain from six to ten pounds a year, the malnourished child may gain only two or three pounds.

Children with malnutrition do not all behave the same way. Some are pale, dull, and listless, with dark rings under their eyes, tire easily, and have no ambition for work or play; their work in school is often so poor that they must frequently repeat their grades. Others are nervous and fretful, hard to please and hard to manage; they eat and sleep badly. Still others are overambitious, constantly active, restless; they find it difficult to concentrate.

Why malnutrition develops. Children get into a condition of malnutrition because their growth is not watched. To

[1] "Malnutrition, Helpful Advice to Parents," *Keep Well Series No. 11.* Treasury Department, United States Public Health Service, 1920.

grow in height and gain regularly in weight is a sign of health in a boy or girl of nine or ten years.

When children do not grow or gain regularly in weight, something is wrong. If these boys and girls are weighed regularly every month, this condition of malnutrition would be discovered early and not allowed to go on to serious consequences.

The causes of malnutrition are in most cases not difficult to find. Among the most important are:

1. The child does not get sufficient food.
2. He does not get the right kind of food. He spoils his appetite for simple foods needed for growth, such as milk, cereals, vegetables, etc., by excessive indulgence in candy, sweets, pastry, and other indigestible food.
3. He eats irregularly, between meals, spoiling his digestion by cakes and trash.
4. He bolts his food, never taking time enough at meals to chew his food properly, but washes it down with water.
5. He drinks tea or coffee instead of milk and water.
6. He does not get enough sleep; at ten or eleven years he does not get to bed until ten o'clock or after, when he should be in bed at eight o'clock, and sleep with windows wide open.
7. He suffers from habitual constipation.
8. He gets too much stimulation and emotional excitement—motion pictures and other evening entertainment.
9. He plays too hard—too many hours or in too active and intense a manner.
10. He is overworked in school or out; sometimes he has too many extra lessons or classes outside of school hours.

11. Malnutrition may also be caused or aggravated by such things as decayed teeth, enlarged or diseased tonsils, or adenoids, and it may be the beginning of some serious disease.
12. In places where malaria or hookworm are present, malnutrition is often the result of these infections.

Malnutrition should be treated. Unless the condition is recognized early and measures are taken to correct it, the effects of malnutrition in childhood may last to adult life. It may show itself as *prolonged ill health and feeble resistance to disease;* the individual may grow up undersized and underweight, not strong enough to do the average work of a man or woman. How common the condition of malnutrition is may be shown by the result of the selective draft, where nearly one man in three of the young men examined was rejected as unfit for active military service. Of those rejected, forty thousand were found unfit because of developmental defects, such as deficient height, weight, chest measurement, or muscular development.

Careful investigations which have been made show that fully 20 per cent of the children in our schools are at present suffering from malnutrition. How many of your children are of this number?

What to do. In order to prevent malnutrition, or at least to recognize it before serious consequences have followed, the most important thing is, *watch the child's weight!* This can best be done in school, where monthly weights of all children should be taken and recorded and special attention should be given to those who do not make a normal gain by the parents, teacher, or school nurse or doctor if there is one. It is essential that every child of the school age should receive a full medical examination once a year.

A child who is suffering from malnutrition—that is, one who is much below normal weight or one who is steadily losing weight or one who is not making a normal gain—should at

once be taken to a physician and examined to see if any disease is developing. In the case of children residing in areas in which malaria or hookworm prevails the physician should search for the presence of the parasites of these and similar diseases. The child's whole daily life should be carefully gone into to see which of the rules of health he is violating and whether this pertains to his food, his habits of eating, his hours of play, of school work, or of sleep.

Malnutrition is cured by correcting the habits or removing the causes already mentioned upon which it depends. Often it is a matter of enforcing discipline in the home.

Some hints on feeding children. As the child grows older he may gradually partake of the same meals as the parents, care being taken to see that the diet is mixed and varied, and that it supplies all the elements necessary to insure growth. Milk should be given at each meal.

Children should not be allowed to drink either tea or coffee.

It is most important to establish regular hours of feeding, and not to permit the children to spoil their appetites by feeding on candy between meals.

HANG ME IN THE KITCHEN

National Dairy Council
910 So. Michigan Ave., Chicago, Ill.

A Simple Guide for Meal Planning

(Have some food from each group in each day's meal)

Energy-giving Foods			Body Building and Regulating Foods				Protective Foods		
			Muscle	Bone, Teeth and Regulating			Vitamins		
Starches	Sugars	Fats	Proteins	Lime or Calcium	Iron	Roughage	A	B	C
Breakfast foods (Whole grain cereals best)	Molasses	BUTTER	MILK	MILK	Egg yolk	Spinach	BUTTER	Fresh eggs	Oranges
Breads (Whole grains best)	Honey	CREAM	Eggs	CHEESE	Molasses	Cabbage (raw better)	CREAM	Spinach	Tomatoes
Crackers	Dried Fruits	CHEESE	CHEESE	BUTTER-MILK	Spinach	Lettuce	MILK	MILK	Raw cabbage
Macaroni	Jellies	ICE CREAM	Lean Meat	COTTAGE CHEESE	Ail greens	Whole raw fruits	Egg yolk	Whole grain cereals	Lemons
Rice	Preserves	Bacon	Fish	Thin leaved greens	Red meat	Celery	Spinach	Cabbage	Grapefruit
Potatoes	ICE CREAM	Meat Fat	Beans	Beans	Lentils	Turnips	Greens	Beets	Rhubarb
Hominy	Syrup	Lard	Peas	Cauliflower	Whole grain cereals	Onions	Beet top	Tomatoes	Raw carrots
Cornmeal	Sugar	Vegetable and animal fats and oils	Cereal		Prunes	Squash	Kale	Carrots	Raw rutabagas
Corn starch	Candy		Nuts		Raisins	Prunes	Chard	Turnips	Raw lettuce
Tapioca	Cake and Cookies	Peanut Butter			Figs	Figs, Dates	Cabbage	Beans and other vegetables if water in which they are cooked is used	Raw onions
Sago	Other desserts	Nuts			Dates	Skins of baked potatoes	Dandelion		RAW MILK
Beans and Peas					MILK	Raisins	Lettuce		
					Oranges	Apples	ICE CREAM		
					Carrots	Asparagus	Liver	Fruits (better raw)	
				Use cooking water of vegetables and fruits		Bran	Sweetbreads	Apples	
							Kidney	Oranges	
							Raw fresh cabbage	Grapefruit	
							Carrots	Nuts	
							Tomatoes		
							Yellow corn		
							Sweet potatoes		
								Use cooking water of vegetables and fruits	

DR. E. V. McCOLLUM
of John Hopkins University, the most eminent authority on foods in relation to health, says, that the basis of good health is laid by including in every day's meals the following:

1. One quart of milk.
2. Two salads.
3. Thin green leaved vegetables raw or cooked.

(OVER)

Adapted from the publication of Iowa State College, Ames, Iowa

Courtesy of National Dairy Council

FIG. 55. A GUIDE FOR MEAL PLANNING

For additional names or information write to
NATIONAL DAIRY COUNCIL
910 So. Michigan Ave.,
Chicago, Ill.

(See other side)

Include in every day's meals the
Protective Foods { MILK, Fruit, Vegetables

BREAKFAST

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Orange or any fresh fruit Oatmeal and Milk Whole wheat toast and butter Milk or cocoa	Baked Apple Shredded wheat Soft boiled egg Graham toast and butter Milk or cocoa	Rhubarb or other seasonable fruit Oatmeal and milk Crisp bacon Buttered Toast Milk or cocoa	Grapefruit Oatmeal and Milk Graham muffins and butter Milk or cocoa	Apple Puffed whole wheat Scrambled egg and buttered toast Milk or cocoa	Prunes Pettijohns and milk Toast and butter Milk or cocoa	Grapefruit Shredded wheat and milk Bacon Poached egg on toast Milk or cocoa

LUNCH

Cream of spinach soup Vegetable salad Graham bread and butter Apple sauce Milk or cocoa	Cottage cheese salad Baked rice and tomato Whole wheat bread and butter Molasses cookies Milk or cocoa	Scalloped potatoes au gratin Lettuce salad (French dressing) Graham bread and butter Stewed fruit Milk or cocoa	Cream of tomato soup Raw carrot, raisin and apple salad Whole wheat bread and butter Milk or cocoa	Macaroni and Cheese Buttered string beans Graham bread and butter Fresh fruit Milk or cocoa	Cream of celery soup Cream Cheese and head lettuce salad Oatmeal bread and butter Junket Milk or cocoa	Welsh rarebit on toast Fruit salad Milk or cocoa

DINNER

Pot roast of pork or beef Baked potato Creamed carrots Milk gelatin with fruit Bread and butter Milk or cocoa	Creamed dried beef Boiled potatoes Brussel sprouts Whole wheat bread and butter Celery Ice cream Milk or cocoa	Irish stew (2 or 3 vegetables if possible) Cabbage salad Graham bread and butter Raisin and rice custard pudding Milk or cocoa	Scalloped ham and potatoes Buttered spinach Fruit salad Gingerbread Milk or cocoa	Baked fish Creamed potato Buttered beets Cabbage and apple salad Whole wheat bread and butter Baked custard Milk or cocoa	Baked beans Stewed tomatoes Celery and apple salad Boston Brown bread and butter Spanish cream Milk or cocoa	Roast beef Browned potatoes Mashed turnips Vegetable salad Graham bread and butter Ice cream Milk or cocoa

"Carefully controlled experiments*** lead to the conclusion that one quart of milk per child per day is the amount required*** for optimum development of bones and teeth.*** However good the dietary in other respects, each child should receive a quart of milk in some form each day; and this standard of consumption should be maintained at least up to the age of fourteen years."—*Dr. H. C. Sherman, Columbia University.*

Courtesy of National Dairy Council

FIG. 56. REVERSE SIDE OF THE GUIDE FOR MEAL PLANNING

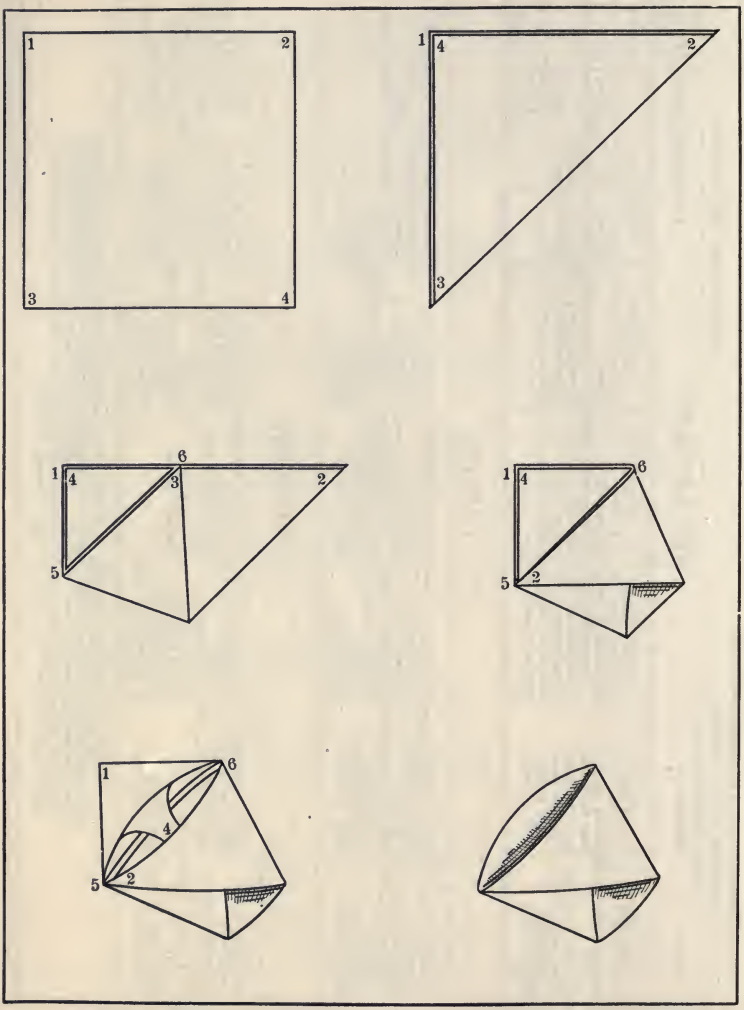


FIG. 57. DIAGRAM SHOWING HOW TO MAKE A PAPER DRINKING CUP

ALL ABOUT MILK[1]

MILTON J. ROSENAU

Professor of Preventive Medicine and Hygiene, Harvard University;
Formerly Director of the Hygienic Laboratory,
United States Public Health Service, etc.

Some things about milk. Milk is our best all-round food. It is the most perfect food we have. It is also one of the cheapest foods, even at the present prices. Milk is the most difficult of all our foodstuffs to collect, handle, and transport. It requires the greatest care from pasture to pail, and from pail to palate. Milk spoils quicker than any other food. It spoils even quicker than fresh fruit and berries. It must be kept *clean*, *cold*, and *covered*.

Milk tastes good; it is easily digested, and is very nourishing. It makes bone, brawn, and blood. In fact, the vigor and success of a nation depend largely upon the amount of milk it uses. In the United States, we use something like forty billion quarts of milk a year. This would make a lake large enough to float all the navies of the world. Yet this is only about half a pint of milk a day for each person. Only one-quarter of this is actually used as milk, the other three-quarters being made into butter, cheese, and other milk products.

Like all good things, milk has a few drawbacks, but these are far outweighed by its advantages.

Milk is the great factor of safety in our diet. It makes the ration complete, promotes growth, and keeps the body strong.

Drink more milk and use it freely in cooking.

[1] Courtesy of the Metropolitan Life Insurance Company. Copyright, 1922.

Milk is the best food. Milk is the best food we have. There is no substitute. Save on other things if you must, but not on milk. You cannot afford to do without it—growing children especially need plenty. Buy at least a pint of milk a day for each person in the household. No other food can take its place. Use it all; do not waste a drop.

Milk looks like a simple fluid, but really it is very complex. A glass of milk contains a mixture of all the important things that make up a mixed diet. One can get the same nourishment from milk as from a meal made up of meat and eggs, sugar and cereals, oils and fats, with salt and water.

Milk is good fuel, because it contains fat and sugar. The body needs fuel to keep it warm and to make it move and work and play, just as the steam engine needs coal or the automobile needs gasoline.

One quart of milk is about equal in fuel value to any of the following:

2 pounds salt codfish
4 pounds beets
⅙ pound butter
⅓ pound cheese
2 pounds potatoes
7 pounds lettuce
8 eggs
3 pounds fresh codfish
5 pounds turnips
⅓ pound wheat flour
¾ pound lean round beef
6 pounds spinach
4 pounds cabbage

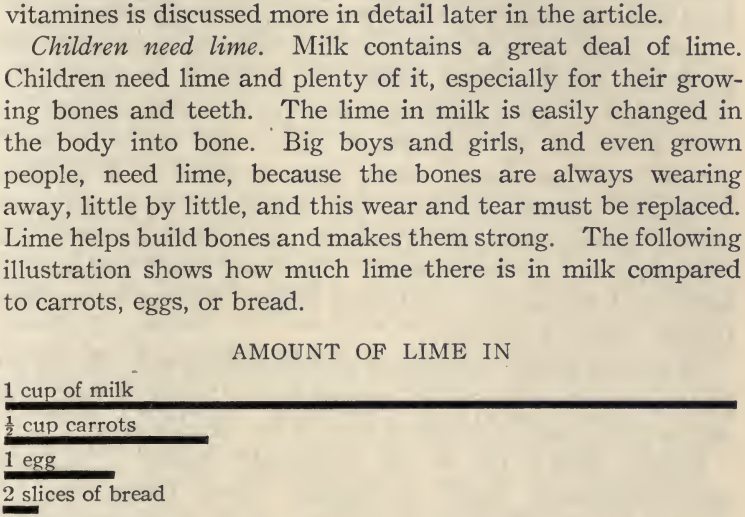
One ordinary glass of milk is about equal in fuel value to:

2 large eggs
1 large serving of lean meat
2 moderate-sized potatoes
5 tablespoonfuls of cooked cereal
3 tablespoonfuls of boiled rice, or
2 slices of bread

Food is more than fuel—it repairs waste, helps growth, builds flesh and bone. Milk does all this. That is, milk is a good food, not only because it is a good fuel, but also because it has life-giving properties. Milk is both fuel and food.

Milk is rich in vitamines. It contains all the different kinds of vitamines which are essential to life. The question of vitamines is discussed more in detail later in the article.

Children need lime. Milk contains a great deal of lime. Children need lime and plenty of it, especially for their growing bones and teeth. The lime in milk is easily changed in the body into bone. Big boys and girls, and even grown people, need lime, because the bones are always wearing away, little by little, and this wear and tear must be replaced. Lime helps build bones and makes them strong. The following illustration shows how much lime there is in milk compared to carrots, eggs, or bread.



Milk is the cheapest food for lime. Buy milk. You and your children need its lime.

Milk not only contains plenty of lime, but also plenty of phosphates in the form of phosphate of lime. In order to utilize this salt especially for growing bones it is important to have a certain amount of sunlight, otherwise the child is apt to develop rickets. Common sense long ago showed the value of sunlight and fresh air. Science has now proved their vital importance, especially for growing children.

Milk is not a drink. Milk is not a beverage. It should not be used to quench thirst. Milk is a food. It should be eaten, not swallowed quickly. Take small sips and roll it about the mouth and enjoy it as it goes down. Think how slowly nature furnishes milk to the suckling. It takes a baby twenty minutes to get a few ounces of milk from the

nipple. Imitate nature—do not gulp down a glassful of milk—drink it slowly; *eat* it. Chew it. This will prevent hard and indigestible curds from forming in the stomach.

Care of baby's milk. Milk for the baby must be kept cold until just before feeding time; then it should be warmed to blood heat. Test the temperature by dropping a little on your wrist. It is dangerous to keep milk warm or tepid for over half an hour. Never keep it warm in a thermos or similar vacuum bottle. Milk should be kept cold, and never warmed until just ready to use. Germs grow at a prodigious rate in warm milk. Clean and scald the nursing bottle and the nipple just before filling. Do not use rubber tubing. Keep away flies.

In case of doubt, the mother should consult a doctor, or go to the nearest milk station, dispensary, or infant depot. Do not raise the baby upon the advice of the neighbors.

Impure milk is one of the preventable causes of sickness and unnecessary deaths of babies. Many babies can be saved by breast feeding, or by the use of fresh, pure milk, by care and cleanliness, and by following the advice of the doctor.

Milk for children. Milk is an absolute necessity for growing children. Each child should have a quart of milk a day. Milk should not be the only food for children, of course. They also need vegetables, fruits, cereals, eggs, and some meat. One of the reasons that milk is especially good for children is that it has vital substances (vitamines) that help growth. Children can get a little of these vital substances in other foods, but they are sure to get enough of them if they drink three glasses of milk every day. Give your boys and girls milk and a chance to grow. Milk also has other valuable things that build bone, make firm flesh, and put glow in the cheeks.

Milk also helps your children to keep well. Look at children who do not get milk, but tea and coffee instead. They are apt to be pale and sickly. Tea and coffee are not foods, but drugs. They stimulate, but do not nourish. Children are better off without stimulants. Give the children fresh clean milk and plenty of it. This will help them to grow up strong and well. Save on other things if you must, but do not save on milk.

Milk for grown-ups. Milk is valuable for grown-ups, especially for sick people. It was found in the army hospitals that the wounded recover more quickly when they have milk. Milk helps to keep you strong, vigorous, and young. Grown-up people *can* live for months and months on milk alone, but a hard-working man would have to drink many quarts each day to keep up his vitality and repair the wear and tear of his body. However, if milk is used in combination with other food, one is sure of getting a well-balanced ration. One pint of milk will serve this purpose for grown-ups—children need a quart. Children must have milk—adults ought to.

Souring and curdling of milk. The souring and curdling of milk is wrongly called nature's danger signal. Nature has no danger signal for milk. The dangers in milk cannot be seen with the naked eye. Our sense of taste and smell are poor sanitary guides. Curdled milk may not be harmful, and is often beneficial.

Usually when milk is allowed to stand it turns sour and curdles. This is the usual way for milk to spoil. This curdling is a special form of fermentation and is caused by an acid which is formed by lactic acid bacteria. Strong acids like sulphuric acid will curdle milk at once. Weak acids like lemon juice will also curdle milk.

When milk curdles, very much the same thing takes place as when an egg is heated—the albuminous matter is made

hard, lumpy, and insoluble. The curd is the thickened albumin of the milk.

Rennet also causes milk to curdle. This is the ferment found in the gastric juice; hence, the first thing that happens to milk when it reaches the stomach is to become curdled. The curd is then acted upon by the pepsin and digested. If the lumps are large and tough, the digestion is slower than if the lumps are soft and small. Therefore, drink milk slowly.

Buttermilk is a curdled milk from which the fat has been removed. It may be a sweet curd or a sour curd. Buttermilk is a pleasant, refreshing beverage and a nourishing food. It has practically all the food value of milk except the fat, most of which is removed by churning to make butter.

Buttermilk is nourishing. Prepared buttermilk is usually made from skim milk and is sold under different trade names. It should always be made from clean, safe milk.

Sour milk can always be put to use. It can be used in making muffins, griddle cakes, and cottage cheese. Use the whey in bread making. Do not waste a drop of it.

Skim milk and cottage cheese. All skim milk should be used—none wasted. It can be used as a drink or a food, in cooking, or to make buttermilk or cottage cheese. Skim milk is the cheapest kind of albumin on the market. It contains all the good qualities of milk except the fat.

Cottage cheese is made either from whole or skim milk.

1 quart thick sour milk	1 tablespoonful top milk
1 quart boiling water	½ teaspoonful salt

Put milk in a large bowl. Add the boiling water and let stand five minutes. Strain through cheesecloth, squeezing gently. Mash the curd with a fork, moisten, and season with salt.

One pound of cottage cheese supplies more albumin than one pound of beef, or one pound of pork, or one pound of lamb, or one pound of veal, or one pound of chicken.

Other milk products, such as cheese, junket, custards, cream sauces, cornstarch and rice puddings, ice cream, and butter, are all good, nourishing, and valuable foods.

Price of milk. Milk is cheap, even at present prices. It is too bad that the housewife is inclined to cut down on milk when the price goes up. It is poor economy to save on vital foods. It is not how much we pay, but how much we get in return that counts. Thus, fourteen cents worth of milk does the body more good than fourteen cents spent on steak at forty-eight cents a pound, or fourteen cents worth of eggs at sixty cents a dozen. At these prices, milk would be worth over forty cents a quart.

To go without milk is poor economy. You get more energy (force) from twenty-five cents worth of milk than you can from twenty-five cents worth of meat, or eggs, or cod. Hence, it is better to cut down on meat before you do so on milk.

The reason for the higher price of milk is the higher cost of everything else, including fodder, farm labor, and transportation. When the price of milk went up a few cents a quart, many families were found giving their children tea and coffee instead of milk. This is a great mistake, for such drinks fail to nourish the child properly.

Life in milk vitamines. Milk contains "life" because it contains vitamines. Vitamines are vital substances of great importance in the diet. They promote growth and favor utilization of food. It is not possible to live without vitamines even though full quantities of food are eaten. Vitamines are not stored in the body, and it is therefore necessary for us to eat food containing some of them almost every day. In this sense we live a "hand-to-mouth" existence.

There are several kinds of vitamines. One of them is found in milk fat. Another is found in the watery part of milk. Milk is very rich in these two vitamines, which are not

injured by heat. Milk also contains a third vitamine known as the antiscorbutic vitamine, which is interesting because it prevents scurvy, a common ailment among children.

The amount of antiscorbutic vitamine in milk depends upon the amount of this vitamine in the fodder of the cow. Barn-fed cows in the winter time may give a milk containing little or no antiscorbutic vitamine. The amount of this important vitamine in milk varies. It is also affected by heat, age, and exposure to the air. The process of pasteurization destroys about half the antiscorbutic vitamine in milk. This emphasizes the importance of giving babies fed with cow's milk some additional substance rich in antiscorbutic vitamine such as orange juice or tomato juice. This should be done whether the milk is pasteurized or not.

Milk has everything needed in the diet. It is a complete mixed diet in itself. It has sugar and fat which give energy (force) to move the body—like coal to the engine; it has mineral salts which build up the bones and keep the body in good shape; and albumin (protein) which—like meat or white of egg—is important in making brawn and sinew. Of all the different kinds of protein to be found in food, the best is found in milk. Sugar, mineral salts, fat, and protein are all necessary in a well-balanced diet. But these substances without vitamines will not nourish the body or promote growth.

Think of the value of having one food which supplies all the necessary elements of a good mixed diet—and which at the same time can be used without special preparation.

Milk is watery. The water may be evaporated, leaving all the food value in a dry powder. In other words, milk may be dried just as apples, pears, and beans may be dried. Dried milk loses none of its food value—it is just as nourishing for family use as fluid milk.

Dried and condensed milk. Condensed or evaporated milk is partially dried, and is also a good food. Condensed milk is preserved with sugar, and therefore is not sterilized. On the other hand, evaporated milk is not sweetened and must be sterilized by heat, in order to preserve it. It is not wise to raise the baby on dried or partly dried milk, without the advice of the doctor.

Dried milk, condensed milk, and evaporated milk should always be prepared from fresh, clean, and safe milk.

Milk may be rich in cream, yet of poor sanitary quality.

Kinds of milk. There are only two kinds of milk—good and bad. There is a growing tendency to classify all milk as either raw milk or pasteurized milk. But there are other classifications: as, Certified milk; "Grade A," "Grade B," and "Grade C."

Be sure that your milk is graded, for it is not possible to tell what kind of milk you are buying by looking at it or by tasting it. The amount of cream does not tell the true story. If your milk is graded, ask the health officer to examine a sample to tell you whether the grade is up to standard.

Certified milk for babies. Certified milk is the very best, freshest, cleanest, and purest raw milk that it is possible to produce. It is milk of uniform composition and of high quality obtained by cleanly methods from healthy cows under special sanitary care. It is so certified by a medical milk commission. Certified milk is honor milk. It is intended especially for babies and invalids.

Certified milk costs more than ordinary milk, because it requires a veterinary surgeon to test the cows with tuberculin to find out whether they have tuberculosis, and to examine them from time to time; a bacteriologist and chemist must analyze the milk; a physician must look after the health of the milkers; the cows must be curried, groomed, and kept as

clean as race horses; sterilizers must be provided for bottles and pails; skilled foremen must be in attendance to see that the milkers wash their hands and wear clean clothes; the milk must be bottled and iced at the dairy; the construction and lighting and ventilation of the cow barns must be extra good and the water supply extra safe.

The greatest care and attention must be constantly practiced. Constant watchfulness is the price of safety.

Grade A. Grade A milk is a good grade of milk obtained from healthy cows by cleanly methods. Grade A milk is not quite as good as certified milk. It should always be pasteurized before you buy it.

Grade B and Grade C. Grades B and C are inferior in quality. Poor grades of milk are not suitable for infant feeding.

Market milk—dip milk. Dip milk is milk dipped from a can. It is also called "bulk milk" and "loose milk." Such milk is often sold at grocery stores and small shops. The best qualities of milk are never sold in bulk, but always in individual bottles. Any milk dipped from a can is therefore pretty sure to be of the poorest grade. If it is advisable to sell crackers and cereals in individual packages, surely milk should be sold in individual bottles to insure cleanliness and protection from dirt, flies, fingers, and germs.

Clean milk. Clean milk is much better than dirty milk, especially when the health of those who handle the milk is carefully supervised. It requires only a little intelligence and reasonable care to keep milk clean. With care, cleanliness, and the use of ice, a satisfactory grade of milk may be sent to market by any farmer. Clean and healthy cows, healthy milkers, milk pails sterilized by scalding, sterilized cans and bottles, clean hands—these are the prime essentials. The milk must be chilled promptly and kept cold. Ice is

the best preservative. Good dairy methods are more important than fancy barns and pedigreed cattle.

Clean milk, kept cold and properly protected, shows very little change in three or even five or ten days. It is not difficult to keep it cold and clean. It is practical to produce milk so clean that it may be shipped across the ocean and back again and still be in good condition.

Dirty milk. Frequently milk contains so much dirt that the specks may be seen as a sediment in the bottom of the bottle or glass. Ordinarily, the dirt cannot be seen because the dairyman has filtered the milk or taken out the dirt in a special machine called a clarifier. Straining will take out the specks, and clarifiers will also make the milk *look* cleaner, but these processes do not improve the milk except in appearance. The bacteria and germs cannot be separated or filtered out.

You can see for yourself that milk hides the dirt because milk is opaque—not transparent. Add a teaspoonful of mud to a quart of milk. Mix it up. The milk will look as white and pure as before the mud was added.

You will find it equally interesting to make the regulation dirt test. Simply strain a pint or a quart of milk through some clean white cotton or through several layers of white cloth. The brownish or blackish stain proves the presence of dirt.

Most of the dirt in milk consists of cow dung; also of particles of dust from the air, bits of straw, hair, dandruff, and trash of all kinds. The dirt is there because most of the milk does not get the care and attention it should have on most farms, especially small farms.

Dirty milk spoils much more quickly than clean milk. It is laden with bacteria, and may be harmful, especially to a young child.

Diseases and dangers. Every rose has its thorns. Milk also has its dangers. It is apt to become contaminated and convey the germs of disease. The principal diseases transmitted through infected milk are tuberculosis, typhoid fever, scarlet fever, diphtheria, septic sore throat, diarrheas and dysenteries, summer complaints of children, and other serious diseases. Fortunately every portion of milk is not a portion of poison. The dangers are, however, sufficiently real and frequent to make us careful.

Fortunately, too, we possess an easy, cheap, and reliable method of preventing these dangers—namely, pasteurization.

Pasteurization of milk. Pasteurized milk simply means heated milk—milk that is parboiled or scalded. It is not necessary to boil milk to pasteurize it. If you have no thermometer, however, it is advisable to bring it to a boil to make sure that the harmful germs are killed. After the milk is heated it must be suddenly chilled and kept cold. This is a very essential part of the process of pasteurization. The milk should be heated to 148° Fahrenheit for thirty minutes. A lower temperature or shorter time may not kill the bacteria. A higher temperature or longer time is not necessary. Pasteurization has only one object, and that is to destroy the harmful bacteria.

The word "pasteurization" is used in honor of the great scientist Pasteur, who discovered the process. Pasteurization neither improves nor harms the milk itself. Weak and dirty milk is still weak and dirty after it has been pasteurized. It would avoid confusion if pasteurized milk were simply called heated milk, for that is all it is. Pasteurized milk is just as digestible and just as nutritious as raw milk. There is no more objection to pasteurizing milk than to broiling beefsteak.

Only the harmful and frail varieties of bacteria are destroyed.

Many harmless and hardy forms survive, and will continue to grow and multiply. Therefore, pasteurized milk turns sour and curdles in much the same way that raw milk spoils.

Pasteurized milk must be handled at least as carefully as raw milk. It may become infected after pasteurization. All milk, whether raw or heated, should be kept covered, cold, and clean.

Pure milk is better than purified milk, but it is so difficult to get pure milk that our only real safety lies in pasteurization. So long as raw milk is apt to be dangerous milk, our only protection lies in heating the milk, thereby killing the germs of tuberculosis, typhoid fever, diphtheria, scarlet fever, septic sore throat, and other ills.

For family use, it is advisable to obtain milk already pasteurized by a trustworthy dairy. It is cheaper, safer, and better to heat milk by wholesale in a large plant with competent supervision than to depend upon each household heating its daily supply. If drinking water needs purification, it is filtered at a central station, and not left for each individual kitchen.

Babies should have mother's milk. There is no adequate substitute. If mother's milk is not available, babies are entitled to the best and freshest cow's milk that can be obtained. Whether such milk is to be modified, pasteurized, or otherwise treated is a question for the doctor to decide in each individual case. Unless very sure of the supply, the doctor will usually not take chances, and will advise pasteurized milk for baby, especially during summertime.

How to pasteurize. The simplest, cheapest, easiest, and best method of making raw milk safe is to pasteurize it. The easiest way to pasteurize milk for family use is to heat it in a double boiler, such as a rice boiler, for three-quarters of an hour, and then to chill it quickly.

The best and simplest home method of pasteurizing milk for infant feeding is in the Straus pasteurizer.

Common-sense precautions. It is to the interest of every householder that the milk supply should be carefully supervised. Is your milkman licensed? Are his dairies inspected? It is more important to license persons engaged in the milk industry than it is to license plumbers, undertakers, or chauffeurs. New York, Washington, Boston, and other cities require all persons who handle milk to obtain an official license or permit from the health authorities. Such a system helps the inspector to compel cleaner dairies and to get rid of sickly cows, and makes it easier to enforce the milk regulations and to improve the supply.

Milk should not be allowed to stand out of doors, but should be taken in as soon as delivered. To prevent the milk becoming contaminated by dirt or by cats and dogs, the milk bottle should be protected in a box until taken into the house, and placed on the ice as soon as possible.

In the home, milk should be kept cold, clean, and covered. If part of the milk in a bottle is used, do not replace the paper stopper, but invert a clean tumbler over the neck of the bottle and at once replace it in the ice chest. Never let the milk bottle stand around. Have a special place in the coldest part of the ice chest for the milk bottles. The best way is to have the milk bottle touching the ice.

Milk is readily tainted and absorbs odors and flavors just as charcoal does. It will soon taste of tobacco, onions, fish, or fruit if exposed to these things in an open pitcher or bottle. Turnips, onions, and other strong-tasting substances fed to the cow will also give a flavor to the milk. Milk should have no odor at all, or, at most, only a slight characteristic odor. A "cowy" odor means smelly barns, poor dairy methods, and tainted milk.

Milk should never be placed in a bottle that has not been purified and disinfected by scalding with boiling water, just before filling. Milk bottles should not be taken into the sick room. They should never be used for any other purpose than to hold milk. They should always be rinsed in cold water and then thoroughly washed and scalded before they are returned to the milkman. Never take milk from a dairyman who does not purify his milk bottles with boiling water or steam.

Solution to the milk problem. Inspection and pasteurization solve the milk problem. We need inspection to keep milk clean, and pasteurization to make milk safe. Inspection goes to the root of the problem and helps bring us cleaner, better, fresher, and safer milk. Inspection, however, has limitations. These limitations may be guarded against by pasteurization. It is certain that a milk supply that is both supervised and pasteurized is the only satisfactory solution of the milk problem.

Milk is the best food, use more milk.

FOOD[1]

If there ever was a subject for enthusiastic and earnest thought, it is the subject of food. We all grow excited over the mechanical achievements and inventions of the twentieth century, over the round-the-world flights of our aviators, over the marvels of the radio—and yet some of the very greatest discoveries of the age are being made in the realm of food. Today we are nearer than ever before to becoming masters of better bodies and better minds if we but listen to what the scientists tell us about foods and if we apply this new knowledge in our daily eating.

FOOD FOR PERSONAL HEALTH

The subject of food is not to be summed up as a "one thousand and ninety-five meals a year" proposition. It is that, to be sure, but it is infinitely more. It is an opportunity for securing abundant health and joy in living, not only for the individual, but for the whole family. The mother of the household who realizes the deep significance of the food problem has it within her power to satisfy the body hunger of her young children so that day by day they are growing stronger and preparing for the years of maturity. And the father of the household is better able to carry on his affairs of business if his food has been wisely selected and properly prepared. A wit, who spoke more wisely than he perhaps knew, recently said, "The whole family's happiness may be traced to the dinner table."

Food, then, is a part of our daily life that requires the best thought of the intelligent woman today, whether she prepares

[1] Courtesy of the Metropolitan Life Insurance Company, 1 Madison Avenue, New York City.

the meals herself or directs their preparation. It is no longer a hit-or-miss process, thanks to the scientists who have devoted the best years of their lives to the subject. It is no longer a following of our own capricious appetites that do not always register true body hungers. The wise use of food is rather a balancing of body-nourishing materials in proper proportion to meet the individual's needs.

What men live by. We have been brought up, perhaps, on the old adage that "bread is the staff of life." But when we are told that the white bread consumed by the average person today is not the "staff" we thought it was, we are convinced that the time has come to give this matter some serious consideration.

The real staff of life is no single article of food—but a series of menus that contain body-building foods, heat- and energy-giving foods, and regulating and protective foods. The laboratory names are, of course, proteins, carbohydrates, fats, salts, and vitamines. The quantity of each in the daily food intake should vary with the seasons of the year. In winter, for example, our diet ought to contain more heat-producing substances than in summer. It is apparent that one need only investigate a very little way into the subject of food to realize that it is worthy of the earnest thought of the home maker and is not something which may be left to the questionable intelligence of the hired cook. The first step toward the selection of wise menus is, of course, knowing the particular articles of food that are grouped under these three classifications.

Body-building foods include lean meats, milk, eggs, cheese, fish, beans, peas, nuts, and cereals. These foods are usually spoken of as proteins, though they of course contain smaller amounts of other substances as well. While many people feel that meat protein is superior to all others in meeting

certain body needs, this is not always the case, because the proteins or body-building material which nature intended for infants, for instance, are to be found in milk. Every home maker should plan for a varied diet and include a wide selection of the body-building foods, not depending upon meat alone.

The heat- and energy-giving foods, or the carbohydrates and fats, figure largely in our diet. Under this classification fall the starches and sugars—cereals, breads, macaroni, tapioca, potatoes, syrup, honey, and molasses. They are needed by active, virile men and women, and growing children who use up so much energy in their work and play hours.

In this same group we find the fats, which are perhaps the storm center of the food problem. Here are listed cream, butter, egg yolk, oils of all kinds, nuts, and meat fats. They are absolutely essential to body health, but the wise man or woman is careful that just the right proportion of fats is taken into the body. A few extra pats of butter a day may entirely counteract the benefit of an otherwise well-regulated diet and conscientious observance of bodily exercise. It is hard to refuse a tempting portion of delectable pastry, but for a man or woman of the obese type to form the habit of accepting it may mean excessive overweight—a condition so undesirable as to be classed as extra-hazardous by life insurance examiners.

The third group, the regulating foods, include such leafy vegetables as spinach, cabbage, lettuce, celery, turnips, dried and fresh fruits such as figs, raisins, and apples, as well as whole grains. These foods should be eaten liberally in the diet. This group, along with milk, and certain other foods mentioned, contain an abundance of the protective elements or vitamines, about which so much has been said lately in the press and from the lecture platform. While you can't

see or handle vitamines, chemists are satisfied that they exist because they are known "by their works." Some food authorities call vitamines our elusive "life guards."

They have been designated as Vitamines A, B, and C. The first, Vitamine A, is known as the fat-soluble vitamine and is found in butter, cream, cheese, eggs, liver, fish oils (especially cod liver oil), thin green leaves of plants, such as lettuce and spinach, yellow vegetables, and tomatoes. This vitamine is especially essential to the prevention of rickets among infants and children. Vitamine B is distributed in food materials more widely. It is found in vegetables and fruits, milk, eggs, whole grains, and liver. Lack of this vitamine causes certain types of paralysis and malnutrition. The presence of Vitamine C in the daily food prevents scurvy, a serious nutritional disease of adults and children, more common in infancy and early childhood. Excellent sources of this vitamine are lemons, oranges, other citrous fruits, tomatoes, potatoes, cabbage, and turnips, especially yellow turnips.

All these foods should figure largely in the diet of the adult and the child.

Importance of green vegetables and fruits. Even more might be said about the importance of green vegetables and fruits. Dr. E. V. McCollum of Johns Hopkins University, one of the leading nutrition experts of the world, states that every day's meals should include at least two salads and thin green-leaved vegetables, raw or cooked. Other health authorities insist just as emphatically that green vegetables and fruits are essential in the diet of the health seeker because of the various benefits that they bring to the body.

First of all, fruits and vegetables contain invaluable mineral matter which enters into the composition of all the tissues of the body. Secondly, they are highly beneficial in cleansing the mouth and in helping to preserve the teeth. Thirdly,

they are bulky foods that aid digestion and keep the body machine in good order by their laxative properties. Fourthly, fruits and vegetables contain much water, which is so essential to our bodily health. If these foods form a liberal part of our daily diet and if, in addition, six glasses of water are taken each day, the water-needs of the body will be adequately satisfied. And finally, fruits and vegetables are rich in vitamines which play so essential a part in maintaining health and promoting growth.

The calory, the yardstick of our meals. With these food facts in mind, the next task of the "maker of menus" is to group various food elements in their right proportion and in right quantities. At this juncture, it is necessary to understand the significance of the calory. Just as coal and gas are valued by the number of heat units per pound, so also is food. The food heat unit chosen is the calory. The average man or woman leading a sedentary life requires about 2,500 calories a day. Body-building foods should form from 10 to 15 per cent of the daily consumption of calories, and energy-giving and heat-producing foods from 75 to 85 per cent. There are countless bulletins and women's magazines which supply delightful menus worked out scientifically. The *Farmers' Bulletin* of the United States Department of Agriculture will furnish suggestions, as will also the American Home Economics Association, with offices in Baltimore, Maryland, and the home economics departments of the various state universities.

It is true that, at the present moment, the whole world seems to be divided into two groups — the fat folks who are trying to reduce, and the thin folks who are doing all sorts of things to gain weight. The secret of correct weight lies in daily exercise and watching intelligently the daily intake of food. Health and food authorities advise that all serious efforts at gaining or reducing should be done under direction

of the family physician, but after he has been consulted and his advice has been given, it is up to the individual, after all, to determine "what manner of man" he shall be. It is at this point in the food story that the question of the "dangerous calories" enters. Now, dangerous calories may be those calories which the thin person never eats or those excess calories that the fat man consumes, scarcely realizing the fact that he is overeating. The latter situation calls forth the greater sympathy on every hand. As the Life Extension Institute recently expressed it in a bulletin they issued, "The temptations of St. Anthony were as nothing compared to the temptations that confront the fat man."

The matter of overweight is usually treated in a jocose way, but is in reality a serious condition. Insurance companies, for instance, look askance at stout people who are attempting to take out policies, because their statistics satisfy them that the years of life expectancy for the overweight person are less than those for the person of normal weight, or even the underweight individuals. (There are, of course, cases of overweight due to organic diseases, glandular disturbances, etc., and for these cases the above statements do not necessarily apply. The best advice to these individuals is that they receive regular treatment from their family physicians who thoroughly understand their cases. It should also be mentioned that overweight frequently occurs with diabetes.)

However, very few stout people need continue to be stout. This condition is "brought on by overeating and underexercising and is removed by reversing the process within limits of safety which vary with the individual."

It is wise for every man and woman to glance at the height, weight, and age chart occasionally to see how he or she measures up to the average. Some physicians suggest a scale as an essential part of the bathroom equipment. This

may be a new idea to many of us, but an idea well worth our investigating.

A young woman in her early thirties was recently heard to complain about her alumnae get-togethers. "Oh, dear," she said, "our school reunions are just a series of three remarks: 'What are you doing now?' 'Are you married?' and 'How stout you are!' and how much emphasis they do place on the third!" There are far too many of us who must unfortunately admit that we too have quailed under allusions to our increasing avoirdupois.

Valuable food and health rules. Before leaving the question of food and its relation to personal health, it would probably be worth while to name some of the food habits which every family and individual should make an earnest effort to cultivate. Children and grown-ups as a rule are apt to look upon their meals as necessary procedures to be dispensed with as rapidly as possible. In reality the taking of food is an exceedingly important part of our life and happiness and should be treated as such. The following are rules which might be taken as safe guides:

1. Eat slowly.
2. Chew thoroughly.
3. Drink four to eight glasses of water a day.
4. Serve meals at regular hours.
5. Use milk in various ways.
6. Do not overload your stomach.
7. Eat different kinds of food.
8. Leave all cares behind when you come to the dinner table.

FOOD LEGISLATION

But the food question is not confined to a consideration of the contents of the daily diet of the individual. Those who purchase food must be sure that it is secured from clean

markets, where the storekeepers take pride in the attractiveness of their wares. It is important for women, both as individual home makers and as civic groups, to know the food ordinances of the particular cities in which they live, and it is equally important that they understand the way in which these ordinances are carried out.

The usual procedure is for the local board of health to inspect the various food markets and stores and, satisfied that the requirements of the laws are being met, to issue "approved cards." In order to aid in the enforcement of the law and generally to improve the condition of the food supply of the community, it is wise to confine patronage to those stores that display "approved cards." The health officer of your community will appreciate this kind of coöperation. But no matter where the food is purchased, it should be the rule of the kitchen that all fruits and vegetables must be washed before they are cooked.

Milk is, of course, our most nearly perfect food and should be widely used. Every home maker should be familiar with the milk ordinances of her state and community. She should know the significance of the score card that determines the grade of the milk her family consumes. She should be sure that the dairy from which she purchases her supply has met all the regulations laid down by the board of health. Milk, especially for children, should be of good quality, and should be pasteurized or from cows regularly tested for tuberculosis.

An investigation into the food legislation and law enforcement of a community is a legitimate activity for any group of women who are interested in the health of the community in which they live.

FOOD, A COMMUNITY PROBLEM

After considering the food problem from the point of view of personal health, and after suggesting a more active interest

in general food legislation and law enforcement, there is still a third phase of the food question to which a group of club women might well give earnest thought, and this is the matter of community education with regard to food.

Whether we live in thickly populated cities containing various national groups of recent immigrants, or in small towns in which every inhabitant has been known to the others for years, we may take it as axiomatic that many of the people living in our community have no definite knowledge concerning food facts. They do not know how best to feed their own bodies or those of their children. Investigation of the health of the inhabitants would very probably show a real need for the dissemination of this kind of knowledge.

Not long ago a survey was made in New York City, and from its findings we may estimate that from 15 per cent to 20 per cent of all the children in the United States belong in the malnourished class. There are thirty-five million children alone in the United States, which means that from five million to seven million children in America are not receiving the food they should have. It is quite possible that a similar situation would be revealed by a survey among adults.

As a means of correcting this condition, nutrition classes have sprung up in many communities under the auspices of the American Red Cross, school systems, and other forward-looking agencies. The demonstrations are usually made with school children. Underweight girls and boys are gathered into a special class. Their diet is carefully watched, and they are taught health facts and habits from the nurse, the physician, and the teacher. Their progress is charted, and in this way the children themselves learn at an early age the important relation between food and health.

Other communities have organized home economics classes with special emphasis on food and cooking. The classes

meet during the daytime or in the evening, depending on the convenience of the people whom they are especially organized to serve.

As a civic group and as women who are the natural guardians of family health, we may well ask ourselves: What is being done here in this community of ours for the general education of the people with regard to food and its relation to health? Have we nutrition classes in our schools? Are there home economics classes that are open to any who desire more knowledge about food and wholesome cooking? What can we as a group of club women do to stimulate everyone to want to eat the kind of food that makes for strong bodies and healthy minds?

THE RESPONSIBILITY OF A TEACHER[1]

No matter what our work in this world may be, each and every one of us has a duty to perform. Whether we are builders of bridges, sailors of ships, transporters of food, or cleaners of streets, we assume a solemn obligation to our fellow men. If we fail in our responsibility, some one, somehow, may suffer.

The lives of the future manhood and womanhood of the nation are in the care of that noble class who have taken upon themselves the responsibility of educating and guiding the children of the land to become strong and healthy men and women.

Some one, somewhere, is responsible for the thousands of misfits, human failures, and ne'er-do-wells we meet on every hand. A little careful observation with a word of advice might have saved many of those unfortunates to lives of usefulness in a needy world.

In the classrooms of our educational institutions, the lives of our future citizens are molded. It is here that one of the greatest responsibilities to mankind is accepted. It is here that physical and mental errors may be quickly detected. It is from here that the warning should be given to parents of children who are otherwise too occupied to notice the first symptoms of physical defects. It is here that the groundwork must be laid for building up strong men and healthy women; men and women who can go out into the world fit to fight the battles of life with vim and vigor.

It is not the object of this article to go into the many problems being faced every day by teachers all over the land who

[1] Courtesy of the Eye Sight Conservation Council of America.

are so conscious of duty to humanity. The main thought is to point out only one phase which seems to have been, to a great extent, overlooked—the *care of the eyes.*

There are millions of school children in this country with defective eyesight. You have some of them in your classroom. They may be those you call "lazy" or "stupid." A word of advice to their parents may help to relieve you of much worry.

Watch the way your pupils use their eyes! Do they tilt their heads? Do they hold the book too near the face? Do they let the book lie upon the desk and stoop over it? Do they twist the body around when reading? When they have to look up, either at you or at the blackboard, do they screw up their eyes and seem to squint? Do they get drowsy even when the room is well ventilated? Do they rub their eyes or their foreheads or wink or blink when they have to read aloud? These are all symptoms of eyestrain that should be recognized and receive prompt attention.

When defective vision is apparent or symptoms of eyestrain are indicated, the child's parents should be notified. In some cases glasses needed under the exacting conditions of the school life may be dispensed with in later years.

Each teacher will find it helpful to test the eyes of pupils by using, for preliminary examination, a Vision Chart for Schools, which will be supplied upon application to the Eye Sight Conservation Council of America, Times Building, New York, N. Y.

Such a preliminary examination will permit the detection of most cases seriously handicapped by defective vision, but it should always be borne in mind that perfect vision does not mean perfect eyes—normal vision does not necessarily indicate a normal eye. Many children with perfect vision have red eyes, may complain of headaches and be backward

in school, resulting from latent errors of refraction not indicated by vision less than normal. Such visual defects can be detected only by one skilled in refraction work.

The most desirable solution is an arrangement whereby each and every pupil is given a thorough eye examination by a competent refractionist.

The need for careful observation on your part is of vital import because the whole nervous system of the human body is affected by eyestrain. If eye defects are not corrected, your great work as a teacher will not be as effective as it should be—much of your good efforts lost.

Possibly that little fellow who sat at the rear desk would some day have become a great jurist or physician and a blessing to humanity if you had only observed his defective vision. That may have been the reason he dropped out of school.

Your work as a teacher is a great and noble work. Men and women have cherished your memory for the deeds you have performed and it will always be so. The big responsibilities you assume are heroically performed. We know you will not fail to help in the conservation of vision which means a "New World through Better Eyesight."

INSTRUCTIONS FOR TESTING VISUAL ACUITY[1]

There are millions of school children in this country with defective eyesight. You have some of them in your classroom. They may be those you call "lazy" or "stupid." A word of advice to their parents may help to relieve you of much worry.

If eye defects are not corrected, your great work as a teacher will not be as effective as it should be—much of your good efforts lost.

The place for the "Vision Chart" should be selected, and a tack placed where the chart may be hung. The testing distance twenty (20) feet from the "Vision Chart" should be measured accurately, and the "Eye Test Line" indicated by means of thumb tacks in the floor. Children should be drilled in properly covering one eye with a piece of stiff paper (one for each child) for the purpose of testing each eye separately.

The "Eye Test" recommended is of a mechanical nature, calling only for simple observation on the teacher's part. It is important that teachers realize that this preliminary examination or acuity of vision test is, at the best, but an approximation and will admit only of the detection of the cases most seriously handicapped by defective vision.

1. Types of Acuteness of Vision:

The conditions revealed by the test and observations may be grouped as follows:

a. Normal acuteness of vision (normal vision)

b. Normal acuteness of vision accompanied by eye-strain (usually "farsightedness")

c. Diminished acuteness of vision (usually "near-sightedness")

[1] Courtesy of the Eye Sight Conservation Council of America, New York City.

2. METHOD:

By use of "Vision Chart" (see Figure 58)

(1) *Exposure of chart:*

Charts should never be exposed except during examinations, as pupils are apt to memorize the order of the letters. If practicable, it is better to examine privately, but when, as is frequently the case, it is not convenient, the rest of the class should be at work while tests are being conducted.

(2) *Light:*

Tests should be made in good daylight, and not on cloudy days. If good daylight is not available, artificial light properly shaded may be used. The chart should be hung with the surface flat on a level with the child's eyes where it has the best illumination from the side. The child should not face the light source.

Do not allow the chart to be covered by glass when in use, as light may be reflected or letters distorted.

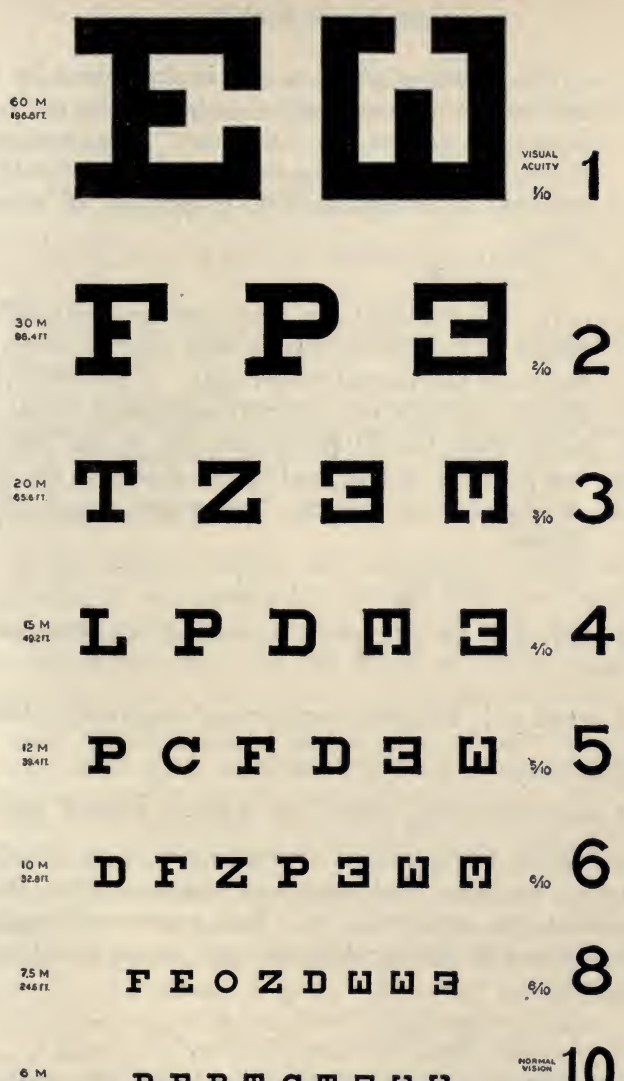
(3) *Testing distance:*

The pupil should stand, or may sit in a chair placed at the "Eye Test Line"—20 feet (6 meters) from the chart—directly in front of it.

(4) *Testing:*

Each eye should be tested separately, starting with the right eye, the other being completely covered with a card or slip of stiff paper so as not to press upon the eyeball. This is important, as pressure might induce an incorrect answer.

The pupil should start at the top of the chart, and should read down from left to right.



Courtesy of Eye Sight Conservation Council of America

FIG. 58. VISION CHART FOR SCHOOLS

The degree of visual acuity is determined by the smallest letters that can be deciphered by each eye separately, 20 feet from the chart. The fraction to the right of the last line successfully read should be recorded as indicating the proportion of normal vision.

To illustrate:

If, with the right eye (the other covered), all the letters in line No. 10 can be read without error, the right eye has normal vision ($\frac{10}{10}$). If the left eye is tested (the right eye covered), and found to see not better than the letters on line No. 5, the left eye has $\frac{5}{10}$ vision, as indicated by the figures to the right of that line of letters. The record would be as follows:

R $\frac{10}{10}$ L $\frac{5}{10}$

3. ILLUSTRATIONS OF TYPES OF ACUTENESS OF VISION—*a*, *b*, AND *c*:

A record of $\frac{10}{10}$ (without symptoms of eyestrain) indicates normal acuteness of vision (type *a*).

A record of even $\frac{10}{10}$ does not indicate normal eyes if accompanied by symptoms of eyestrain such as cross-eye, habitual headache, and unnatural weariness after study, bloodshot eyes, crusty lids, etc. Such evidence of eyestrain is designated by the symbol "S," and record would be as follows:

R $\frac{10}{10}$ (S) L $\frac{10}{10}$ (S)

This indicates normal acuteness of vision plus eyestrain (type *b*).

The detection of eyestrain symptoms depends upon careful classroom observation, and not upon the use of the vision chart alone.

A record of less than $\frac{10}{10}$ in one or both eyes, i. e., $\frac{8}{10}$ $\frac{6}{10}$, $\frac{5}{10}$, $\frac{4}{10}$, etc., indicates diminished acuteness of vision (type *c*).

Always record each eye separately, even though vision is equal.

NOTE: The large figure at the right of each line serves a double purpose. It affords a convenient way of referring to a particular line and also serves as a numerator for expressing vision in tenths. *To illustrate:* Line No. 1 would indicate $\frac{1}{10}$ vision; line No. 6 — $\frac{6}{10}$ vision; line No. 8 — $\frac{8}{10}$ vision; line No. 10 — $\frac{10}{10}$ vision, etc.

If the person making the examination suspects that the child is memorizing the letters, have the child read them from right to left, or the examiner may easily prove by having the child call the letters as indicated by the examiner pointing to them out of their usual sequence.

NOTE: Children wearing glasses should be tested first without them and the result recorded, then they should wear their glasses, properly adjusted, and the result again recorded. If vision below normal is not appreciably improved by glasses, the child should be referred for reëxamination and a possible change of glasses.

For children who do not know the names of letters, the symbol "E" has been placed on each line in various positions. The one being examined should indicate in which direction this character opens. This may be done by the child motioning with the hand whether the symbol opens up or down or to the right or to the left as the case may be. Or, the child may be instructed to hold the three middle fingers of the hand in the position of the symbol, as pointed

out on the chart, or the symbol "E" may be cut out of cardboard which the child may hold in the hand, turning it to the same position as that of the symbol as pointed out on the "Vision Chart."

NOTE: It always should be borne in mind that perfect vision does not mean perfect eyes—normal vision does not necessarily indicate a normal eye.

Many children with perfect vision may have latent errors of refraction of considerable degree causing red eyes, headaches, etc., and making the child backward in school. Such defects may not be indicated by vision below normal and cannot be detected except by one skilled in refraction work.

It is important, on account of the foregoing, that neither the teacher nor the child get the impression that just because vision is normal the eyes are free from eyestrain.

The most desirable solution, which it is hoped may eventually be realized, is an arrangement whereby every pupil shall receive periodically a thorough eye examination by a competent refractionist, i. e., one skilled in the science of measuring the human eye to determine defects of vision.

A KNIGHT WITHOUT REPROACH[1]

ELLIS PARKER BUTLER

That Daisy Oliver was thoroughly interested in the fascinating game known as the Modern Health Crusade no one who had the privilege of two minutes of conversation with her could doubt. As a matter of fact, she had reached perfection in most of the eleven chores long before she reached the mature age of six years, for at three she was so passionately fond of toothpaste that Mrs. Oliver had the greatest difficulty in preventing her from eating it as one eats marshmallow whip or chocolate fudge. At that tender age she seemed to consider her toothbrush a variety of spoon and—Mrs. Oliver said—it was really quite necessary to buy a variety of toothpaste that tasted less like a confection or Daisy would have bankrupted the family through overindulgence in the pleasant pink paste. And as for baths—it was true that she screamed to be put into the bathtub and howled when she was taken out.

Mr. Oliver said he sometimes feared he had by some freak of Nature become the father of a fish. Not that fish scream or howl, but it must be admitted that they do love bathing.

No one seeing Daisy start for school on a pleasant spring day could doubt that she was already by nature and training a knight of the white smile and an eminent exponent of the ideas of the Modern Health Crusade. No one would ever think of wondering whether Daisy Oliver had washed her ears and neck and cleaned her finger nails as required by the knightly Chore Two.

[1] Reprinted under special arrangements with Ellis Parker Butler and Walter H. Baker Company, Boston, Massachusetts, from the *Strack Platform Readings from the Stories of Ellis Parker Butler.*

Each morning she started for school in a condition that may rightly be called immaculate, and she had always been so, but when Miss Curwin — more often spoken of as Teacher — told the school that any scholar might become a page and then a knight and then a glorious knight banneret by doing each day

FIG. 59. A BAND OF CRUSADERS

the simple health chores required, Daisy Oliver became a really violent exponent of the principles of the modern knighthood.

It was Daisy who, when the Sunday-school teacher asked her what Moses brought down from the mountain, answered, "A toothbrush."

Golden-haired, blue-eyed, and rosy-cheeked, Daisy was, from the first, one hundred per cent perfect in her chore charts. When she took the ten slow breaths, she took twenty of them and took them so slowly and deeply that the taking resembled a

religious rite or the attempt of the frog to swell to the size of the ox. When she drank her glass of water before each meal, she chose the largest glass and filled it so full that a pint or so ran over and made a puddle on the table, and she held the glass upended above her rosy mouth until the last drop had trickled down her throat. There were not enough places on the chart to check the chore: "I took a full bath on each day of the week that is checked—X."

The thought that there were 3,000,000 children in the United States enrolled in the Modern Health Crusade and that she was perhaps the knight most perfect and most without reproach filled her with elation and made it easy for her to stand up straight. There were moments, when Miss Curwin commented enthusiastically upon the chore card of Miss Oliver, when Miss Oliver stood so straight that she was in danger of falling over backward.

And all the while an obscure knight, scorned by Miss Oliver, was slowly creeping upward in the chore scores, even threatening to equal the peerless champion. It might be said that out of the grime that had obscured his face and neck for years a Roland was emerging to challenge her Oliver, but the name of the knight was Mick Grogan.

Out of the obscurity that had—so to speak—covered his patched breeches and faded shirt Micky Grogan was first dragged by Knight Daisy Oliver the very day Miss Curwin proclaimed the six-row tourney.

"And so," said Miss Curwin, facing her six rows of boys and girls, "we are going to have a real tourney such as the knights had in days of old, and I will keep the score of each row separate, and the row that wins will have an honor flag. The row that has the best score for the ten days will win. Now, are there any questions?"

There were six rows—three of boys and three of girls—

and from them hands rose until it seemed to Miss Curwin that every hand was in the air.

"Now, now," said Bertha Kubelik excitedly; "now, Chore Eight says I got to be in bed ten hours or more every night, Miss Curwin, and—now—I ain't got no bed, because I sleep in a cot."

"A cot is the same as a bed," said Miss Curwin. "Whatever you usually sleep in is your bed."

"Miss Curwin," said Daisy Oliver, "I don't have to sleep with any windows open, do I, because I sleep outdoors on my sleeping porch—and it don't have any windows, only screens. So I don't have to have any windows open, do I? Because Bertha, she says—"

"Any one who sleeps outdoors or on a sleeping porch can count as sleeping with the windows open," ruled Miss Curwin.

One by one the questions were answered and the hands fell. It was evident to Miss Curwin that the tourney would be a success. Already a fierce partisanship was developing between the rows. Across the narrow aisle between their seats the blond and inseparable Ferris twins were indulging in a whispered controversy.

" 'Tis, too!"

" 'Tain't either!"

" 'Tis, and I'll tell teacher if you drink a single drop. You're a cheater if you say you didn't when you did!"

"Dorothy Ann! Gladys!" said Miss Curwin. "What is the trouble?"

"Well, grape juice is a injurious drink, ain't it?" demanded Gladys. "Because Dorothy says it ain't, and it is, ain't it? And she can't either say she didn't drink a injurious drink if she drinks grape juice, can she? Because she drinks lots of grape juice."

At such moments one cannot hesitate.

"Grape juice is not an injurious drink," ruled Miss Curwin.

"Yah!" said the Dorothy Ann twin triumphantly to the Gladys twin; "just because you don't like it you think I got to stop drinking it!"

As the less violent knights subsided, their simple queries answered, it became evident that others were prepared to maintain the rights of their rows to the last bitter swish of toothbrush across tooth and to protest every irregularity that might benefit an opposing row.

"Miss Curwin, now," said Bertha Kubelik of the second row, "Rose Lagomarcino she ain't wholesome when she now sleeps in her undershirt, is she?"

"I don't no such thing!" declared Rosa. "I don't sleep in it, because I don't wear none."

"She does too!" insisted Bertha. "Her mother, now, sews her into it."

"Only winters," Rosa declared. "Summers not. My mother she should take a chance I should maybe take off my undershirt and lose it winters and get sick by my lungs, Miss Curwin. But summers I don't wear none—no, ma'am."

"Does that answer your objection, Bertha?" asked Miss Curwin.

"If she don't believe it," said Rosa, her black eyes snapping, "she could come out in the hall and I show her once I ain't got no undershirt on but my skin."

Bertha seemed to be satisfied, and Miss Curwin—glancing over her six militant rows—had an inspiration.

"I am going to appoint a captain for each row," she said. "If there are any other questions that come up, the knights may ask the captains and the captains may ask me. If there are any objections to anything or any protests, they can be told to the captains and the captains can tell me."

She paused a moment while she let her eyes run over the faces before her.

"The captains will be," she said, "Row One, Rosa Lagomarcino; Row Two, Bertha Kubelik; Row Three, Daisy Oliver; Row Four, Michael Grogan; Row Five, Edward Petzoff; Row Six, John Schultz."

Instantly Miss Oliver's white and plump hand shot into the air.

"Daisy?" said Miss Curwin.

"Please, Miss Curwin, it ain't fair," said Miss Daisy, "because all my row has two hands to wash and Micky Grogan he only has one hand, so it ain't fair, because his row don't have to wash as many hands as my row does."

Miss Curwin looked from Daisy to where Micky Grogan sat, his left coat sleeve doubled at the elbow, and its cuff fastened to his shoulder with a safety pin.

"Aw, gee!" said Mickey scornfully. "If she's goin' to kick about dat I'll wash me hand twicet. I know what's eatin' her—she's scared she'll be beat."

"I am not!" declared Daisy. "But his row hasn't got as many hands to wash."

"I am sure Michael would be glad to have another hand to wash," said Miss Curwin. "I shall rule that it is only necessary to wash as many hands as you have."

"It ain't fair!" declared Daisy.

Miss Curwin glanced along Daisy's row. In the mouths of many of Daisy's rowmates were great gaps where the first teeth had departed and the second had not yet come. Even in Daisy's pretty mouth there were gaps from which the pearls had fled.

"If we began making handicaps, Daisy," Miss Curwin said, "we would have to deduct quite a little from your row's score, too, because your row has so few teeth to brush. Your row has a great many teeth missing, Daisy."

"Well," said Daisy, turning to look at her row of lady knights, and then she took her seat suddenly and said no more. She

was a wise captain—the missing teeth vastly outnumbered the missing hand of Row Four. Captain Daisy knew when to file a protest, but she knew equally when to let the protest go by default. Some of the mouths in Row Three seemed to call less for a toothbrush than for a vacuum cleaner, there being little but a vacuum to clean.

During the days of the tourney—if never before—the chore cards of the pupils of Miss Curwin's room reached perfection. For the moment health and hygiene surpassed Thrift Stamps and tin-foil gathering as matters of vital interest and sources of conversation.

There were incidents that shook the class to its center, as when Mamie Best came to school weeping because during the night she had fallen out of bed without wakening and feared therefore that she had failed in Chore Eight, which required her to be in bed ten hours or more, while she had slept part of her ten hours on the floor.

As captains of Row Three and Row Four the pink-and-white Daisy Oliver and the red-and-freckled Micky Grogan held their respective rows so strictly to the spirit and letter of the eleven chores that before the morning that began the eighth day of the tourney it was evident that the honor flag would inevitably be won by Row Three or Row Four.

Knight Daisy had for the six little lady knights in Row Three a method of maintaining the proper morale that was different from that used by Knight Michael, for Micky's one fist—however thoroughly it might be washed—was hard and to be dreaded.

"Lemme look at yer neck, San. All right! Lemme see yer finger nails. All right! Lemme look at yer neck, Rocco. All right! An' don't you go an' fergit to wash yer ears like you did once, or you know what I'll give you, see?"

He illustrated with a swing of his right fist against his own jaw, but a tempered swing, not the short-arm jab his faithful

knights knew they might expect if they neglected a chore. For Mickey was a scrapper when there was need of scrapping. He had learned because it is unfortunately the pleasure of some small boys to pick on those who have lost a hand or are otherwise seemingly easy conquests. Micky had early learned that he must protect himself, and now he was usually left in peace, for he had also learned that one fist can be at a disadvantage against two, and he fought close in so that he could parry and block with his stump of an arm while his right gave short, swift blows.

Knight Daisy on the other hand used all the social wiles.

"I guess my mamma'll let me have a party if my row wins, but I guess she won't if it don't. Anyway, I guess she wouldn't want me to 'sociate with anybody that didn't do her chores."

Before the eighth day of the tourney the party was an assured fact—if all the little girls of Row Three bore themselves with knightly honor during the entire ten days. Nor was this difficult, for the chores were not hard—especially for little girls. Row Three, having duly impressed its parents with the necessity for a supernormal record, bathed as it had never bathed before. Every day was checked by each and every child where the chart said, "I took a full bath on each day of the week that is checked—X." They mourned that there were not more days to check.

For Micky Grogan's knights the schedule was somewhat more difficult to maintain. Micky himself had to wait until the shades of night had fallen before he could be sure of the washtub, for if he got up in the morning before his mother needed it to do her taken-in laundry work he would have had to cut short his ten hours in the bed chore, his mother was such an early riser. Washing his hand did not bother him; he had long since learned how to give it a good cleaning by rubbing it on a scrubbing brush submerged in the hand basin. He could attend to his five finger nails with a stick pointed and

stuck point up in any crack or crevice. His mother's unalterable objection to open windows he overcame by making his bed in a hammock on the small back porch, and the other chores were simple.

On the morning of the ninth day of the tourney Miss Curwin called the leaders of Row Three and Row Four before her.

"I wanted to tell you, Daisy and Micky," she said, "that your rows have made really wonderful scores thus far. Both of the rows are perfect for the first eight days. Unless you have some unreasonably bad scores today and tomorrow one of your two rows is pretty sure to win."

"Dere ain't nobody in my row goin' to make no bad score, I betcher!" said Micky. "He'd better not!"

"My row either!" said Daisy.

But after school Micky thought it as well to gather his faithful round him and give his final instructions.

"Nobody don't want to throw me down tomorrow, see?" he said. "Us an' them girls is scored up jess the same, an' they ain't goin' to fall down, and if one of yous does we're goners, see? You got to wash your hands and everything. Don't none of yous go and fergit to drink a glass of water before each meal or nothing, or I got it in for yous. Git to bed early, see? 'Cause maybe the house might burn down or something. Don't take no chances. Do like the chart says."

"Aw! We're goin' to, ain't we? You do like the chart says yourself," said Bud Craggin. "You jaw too much."

"Don't you fret about me," said Micky. "I wouldn't skip a chore if you killed me. Not tomorrow, anyway."

Mrs. Grogan was herself deeply interested in the tourney by this time. When Micky came to supper she asked, "Have ye washed yer hand, Micky?" And demanded to see it before she would serve him. She listened with pride when he told her his row was jousting on even terms with Row Three for the honor flag.

"Are ye right sure ye took a glass of water, Micky?" she asked anxiously as he raised the first forkful to his mouth.

"Sure, I did! I ain't fergittin', you bet!" he answered.

"I left the tub on th' back porch for ye," she told him, "for yer bath, an' full of water it is at that. An' Micky—"

"Yes, ma?"

"I've got to be takin' Mis' Oliver's washin' home, so I'll be lockin' up th' house before I go. I've slang yer hammick on th' back porch for ye, thinkin' maybe ye'll be wantin' to go t' bed early t' git th' full tin hours' slape. I put yer toot'-brush on th' porch railin'."

"Yes, ma."

So Micky retired to his hammock after his bath for a night of the soundest of sleep, and his mother locked the doors and windows safely, and then—as Fate would have it and as she had not deserved—fell down Mrs. Oliver's back steps and broke her leg.

When Micky awakened and tumbled out of his hammock he knew by the slant of the sun that he had put in the full requirement of hours in bed—and more, but his mother was not as yet at work at her washtub. He beat on the back door, not knowing that she was on her back in one of the beds of the Westcote Hospital, and when she did not answer he decided to get that day's full bath out of the way. He filled the tub at the spigot under the back porch and plunged into it. He rubbed himself down with the towel that hung beside the kitchen door. He brushed his white teeth. He cleaned his finger nails. He took ten and then ten more deep breaths.

And still his mother did not open the kitchen door.

Micky sat on the back steps and waited. Now and then he looked over his shoulder at the closed door of the kitchen. He was getting hungry. He went to the faucet under the back

porch and washed his hand. He did his duty by his finger nails. He took the cracked tumbler to the faucet and filled it with cold water and set it on the step. He did not mean to forget the glass of water before each meal on this most important morning.

And still his mother did not open the back door.

At half past eight Micky became restive. The duties of the captaincy of Row Four demanded—he felt—that he be at the schoolhouse gate to give his knights the once-over and to make sure that their faces and ears and necks had been chored beyond question. He pounded on the back door again and listened. His mother, he decided, was not in the house.

That she should not be in the house did not strike him as particularly strange; she sometimes went out washing and she might have gone early this morning. In that case he would have nothing to eat until noon. Even this did not dismay him; it had happened before. He turned from the door and went slowly down the steps and raised the glass of before-meal water and put the edge of the glass to his lips.

And then he paused.

How could he drink a glass of water before a breakfast that he was not going to have? Breakfast! He might have no dinner and no supper, and he visioned the eager captain of Row Three rising in her place in the class and holding up an imperative hand until Miss Curwin bade her speak. He could hear her saying: "It ain't fair, Miss Curwin, because Micky Grogan didn't drink a glass of water before his meals today because he didn't have any meals," and Miss Curwin saying: "Of course, if Micky didn't have any meals he could not drink a glass of water before them, so he did not do Chore Four and your row wins the honor flag, Daisy."

Micky put the glass of water beside him on the step and scowled at the back fence. A fine one the fellows would think

him if he was the one to fail the row when he was captain and all! And then he had the great idea.

Four minutes later Daisy Oliver on her way to school stopped and stared over the low picket fence at Micky in the side yard. He had swallowed the glass of water and was having his breakfast on his hands and knees.

"Teacher," shrilled Daisy when school had assembled and her madly waving hand had drawn Miss Curwin's attention. "Teacher, grass ain't breakfast, is it?"

"Grass? Breakfast?" queried Miss Curwin, puzzled. "Whatever do you mean, Daisy?"

"Well, Micky he didn't have any breakfast, because his mother fell down our steps and her leg it got broke and the amberlance it took her to the hospital, because she was coming to our house with the washing—"

"You asked something about breakfast?" said Miss Curwin.

"Yes, ma'am, and Micky he drank a glass of water, but I was coming to school and I says, 'What you doing, Micky?' and he says, 'I'm having my breakfast, what you think I'm doing?' And grass ain't breakfast, is it, Miss Curwin?"

"Aw!" exclaimed Micky, his face reddening.

"You mean Micky was eating grass?" asked Miss Curwin, unable to believe her ears.

"Yes,'m, like a horse," said Daisy. "On his hands and knees, chewing it in his side yard. And grass ain't breakfast, is it?"

Many difficult matters come before a teacher for settlement, and the wise teacher thinks before she speaks. Miss Curwin hesitated.

"Just so he could say he drank a glass of water before breakfast!" said Daisy indignantly. "And grass ain't breakfast, is it? So he didn't do Chore Four, did he, Miss Curwin?"

"Didn't you have any breakfast, Micky?" asked Miss Curwin kindly.

"Yes'm."

"What did you have?"

"Grass," said Micky defiantly. "I got a right to eat grass if I want to."

"Did you forget to drink a glass of water before your regular breakfast, Micky?"

"Aw, chee! I didn't have no other breakfast. I didn't fergit nothin'. I got a right to eat grass if I want to. I ain't the only one what done it."

"You are too!" said Daisy.

"I ain't neither. King Neb—Neb—"

"Nebuchadnezzar?" Miss Curwin aided.

"Yes'm, he done it," said Micky triumphantly. "An' if a king done it a feller can, can't he?"

"But why did you do it?" asked Miss Curwin.

"Well, I got to, ain't I, so I can drink my glass of water before it?" demanded Micky.

Miss Curwin opened her desk and took out her purse. She took a shining quarter dollar in her fingers.

"School!" she said, rapping on her desk with it for attention. "You have heard Micky and Daisy. Let me explain clearly then that Chore Four does not require meals, but only that if meals are eaten a glass of water must be taken before the meal. And I want you to be proud of Micky, even if he misunderstood the chore, because, Micky, you are a gallant, valiant knight, without fear and without reproach, and I am proud of you. And now, Micky, I want you to take this quarter and go down and get a real breakfast at the restaurant at the corner."

She stepped down from the platform and laid the coin on Micky's desk.

"Aw, say," said the Knight Without Fear and Without Reproach, "I can't swaller no more breakfast; I'm all fulled up with hay."

Chore Record

—x—

I certify on my honor that I did every chore marked (x) on this folder.

Signature of boy or girl

I believe that the above statement is correct.

Approved.....
Teacher

Signature of parent

Ninth Week							Tenth Week							Eleventh Week							Twelfth Week						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S

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Standard Weight Tables for Height and Age

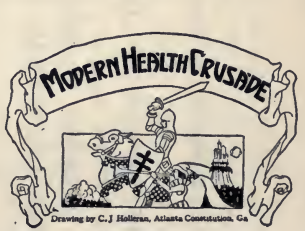
Prepared by Dr. Bird T. Baldwin and Dr. Thomas D. Wood.

Boys

Height	6 Yrs	6 Yrs	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
38	34	34												
39	35	35												
40	36	36												
41	38	38	38											
42	39	39	39	39										
43	41	41	41	41										
44	44	44	44	44										
45	46	46	46	46	46									
46	47	47	47	47	48									
47	49	50	50	50	50	50								
48	.....	52	52	52	52	53	55							
49	.....	53	55	55	55	55	56	58						
50	.....	57	58	58	58	58	58	61	61					
51	.....	.....	61	61	61	61	61	64	64					
52	.....	.....	63	64	64	64	64	67	66	68				
53	.....	.....	66	67	67	67	67	69	68	71	72			
54	.....	.....	.....	70	70	70	70	71	71	74	74			
55	.....	.....	.....	72	72	73	73	74	74	76	78	80		
56	.....	.....	.....	75	76	77	77	77	78	78	80	82		
57	.....	.....	.....	.....	79	80	81	81	82	83	83	85		
58	.....	.....	.....	83	84	84	84	83	85	85	87			
59	.....	.....	.....	.....	87	88	88	89	89	90	90	90		
60	.....	.....	.....	.....	91	92	92	93	94	95	95	95		
61	.....	.....	.....	.....	.....	93	96	97	99	99	100	100	105	105
62	.....	.....	.....	.....	.....	100	101	102	103	104	104	107	111	110
63	.....	.....	.....	.....	.....	105	106	107	108	110	110	113	118	122
64	.....	.....	.....	.....	.....	.....	109	111	113	116	117	121	128	128
65	.....	.....	.....	.....	.....	.....	114	117	118	120	122	127	131	131
66	.....	.....	.....	.....	.....	.....	.....	119	122	125	128	132	138	138
67	.....	.....	.....	.....	.....	.....	.....	124	128	130	134	136	139	139
68	.....	.....	.....	.....	.....	.....	.....	.....	134	134	137	141	143	143
69	.....	.....	.....	.....	.....	.....	.....	.....	137	139	143	146	148	149
70	.....	.....	.....	.....	.....	.....	.....	.....	143	144	145	148	151	151
71	.....	.....	.....	.....	.....	.....	.....	.....	148	150	151	152	154	154
72	.....	.....	.....	.....	.....	.....	.....	.....	.....	153	156	156	156	156
73	.....	.....	.....	.....	.....	.....	.....	.....	.....	157	160	158	158	164
74	.....	.....	.....	.....	.....	.....	.....	.....	.....	160	164	168	170	

Girls

Height	5 Yrs	6 Yrs	7 Yrs	8 Yrs	9 Yrs	10 Yrs	11 Yrs	12 Yrs	13 Yrs	14 Yrs	15 Yrs	16 Yrs	17 Yrs	18 Yrs
38	32	33												
39	34	34												
40	36	36	36											
41	37	37	37											
42	39	39	39											
43	41	41	41	41										
44	42	42	42	42										
45	45	45	45	45	48									
46	47	47	47	46	48									
47	50	50	50	50	50	50								
48	.....	53	53	53	52	53	53							
49	.....	54	54	55	53	56	56	56						
50	.....	56	56	57	56	58	59	61	63					
51	.....	.....	59	60	61	61	62	63	65					
52	.....	.....	63	64	64	64	64	65	67					
53	.....	.....	66	67	67	68	68	69	71					
54	.....	.....	.....	69	70	70	71	71	73	77	78			
55	.....	.....	.....	72	73	74	74	75	77	78	79	81	83	
56	.....	.....	.....	.....	76	77	78	78	79	81	83			
57	.....	.....	.....	.....	80	82	82	82	84	86	88	92		
58	.....	.....	.....	.....	.....	84	86	86	88	92	96	101	104	
59	.....	.....	.....	.....	.....	87	90	90	92	96	100	105	106	
60	.....	.....	.....	.....	.....	91	95	95	97	101	103	105	108	111
61	.....	.....	.....	.....	.....	.....	99	100	101	105	108	112	113	116
62	.....	.....	.....	.....	.....	.....	104	105	106	109	113	115	117	118
63	.....	.....	.....	.....	.....	.....	110	110	112	113	117	119	120	
64	.....	.....	.....	.....	.....	.....	114	114	117	117	119	120	122	
65	.....	.....	.....	.....	.....	.....	118	120	121	122	123	125	125	
66	.....	.....	.....	.....	.....	.....	.....	124	124	126	128	129	130	
67	.....	.....	.....	.....	.....	.....	.....	128	130	131	133	133	133	
68	.....	.....	.....	.....	.....	.....	.....	131	133	133	136	136	136	
69	.....	.....	.....	.....	.....	.....	.....	.....	135	136	139	139	139	
70	.....	.....	.....	.....	.....	.....	.....	.....	136	138	140	142	144	
71	.....	.....	.....	.....	.....	.....	.....	.....	138	140	142	144	145	



This Chore Folder is the property of

.....

.....grade.....school

.....County

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FORM B - 12 WEEKS

Issued By: THE NATIONAL TUBERCULOSIS ASSOCIATION
370 Seventh Ave., New York City

Courtesy of National Tuberculosis Association

FIG. 60. HEALTH CHORE FOLDER

The Modern Health Crusade

In days of old, Crusaders bold
Rode forth to fight the foe.
And we today, as brave as they,
Forth to the battle go.
Let's fight for health and happiness
And on each trusty blade,
We'll write the glorious motto, HEALTH.
Hurrah for our Crusade!

—Nat'l Child Welfare Assn.

DAILY CHORES

1. I washed my hands before each meal. I cleaned my fingernails today.
2. I brushed my teeth after breakfast and the evening meal.
3. I carried a handkerchief and used it to protect others if I coughed or sneezed.
4. I tried to avoid accidents to others and myself. I looked both ways when crossing the street (road).
5. I drank four glasses of water but no tea, coffee, nor any harmful drink.
6. I had three wholesome meals including a nourishing breakfast. I drank milk.
7. I ate some cereal of bread, green (watery) vegetable and fruit, but ate no candy nor "sweets" unless at the end of a meal.
8. I went to toilet at my regular time.
9. I tried to sit and to stand straight.
10. I was in bed eleven hours last night, windows open.
11. I had a complete bath and rubbed myself dry on each day of the week checked (x).

Form B — Total number each day

Weight Record

Age.....yrs. Height.....ins.
Standard weight for height.....lbs.
Weight at beginning of Crusade.....lbs.
Weight at end of 4th week.....lbs.
Weight at end of 8th week.....lbs.
Weight at end of 12th week.....lbs.
Weight at end of 16th week.....lbs.
Weight at end of 20th week.....lbs.
Weight at end of 24th week.....lbs.

Doing the health chores will help to keep your weight what it should be.

First Week	Second Week	Third Week	Fourth Week
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S

Fifth Week	Sixth Week	Seventh Week	Eighth Week
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S

The Crusader's Creed

I believe in my country, and in the good citizenship of its people.

I believe that to support my country I must have Health, Strength and Honor.

I love my country's Flag. To me its bright red stands for bright red blood, which means energy and power, cheerfulness and hope, human kindness and the joy of living. Its pure white stands for clean bodies which house clean minds. Its blue stands for the clear sky, the sunshine, fresh air, play and exercise.

As an American I will be a faithful soldier in the children's army of peace, the Modern Health Crusade.

Courtesy of National Tuberculosis Association

FIG. 61. REVERSE SIDE OF HEALTH CHORE FOLDER

FIG. 62. DEMONSTRATION—BRUSHING THE TEETH

INCORRECT POSTURE
(Weak or fatigue posture)
The neck and trunk form a zigzag line

CORRECT POSTURE
(Strong, healthful, beautiful, and efficient)
The neck and trunk form a straight, vertical line

EXAGGERATED POSTURE
(Rigid, ugly, harmful)
This posture can be held only for a short time and with great effort

Courtesy of the American Posture League, Inc.

FIG. 63. WALL CHART ISSUED BY AMERICAN POSTURE LEAGUE

The first figure shown is often the result of carelessness, and of no classroom instructions pertaining to posture being given; the third figure is more often the result of wrong directions, such as "Throw back your shoulders." Please work toward eliminating these faulty postures.

FIG. 64. THIS SEAT IS TOO LARGE TO FIT THIS CHILD

The high desk causes the right shoulder to be raised completely out of line while the left shoulder droops. The seat is so high that the child's feet fail to reach the floor. Does such a condition exist in your schoolroom?

FIG. 65. THIS SEAT FITS THE CHILD

Please compare the posture of this child with the one pictured in Figure 64. Notice the straight shoulder blades, the ease of the arm, and the comfortable position of the feet. Her position is one of ease rather than of strain.

FIG. 66. THE HEALTH CORNER

FIG. 67. POSTER MADE BY UPPER-GRADE CHILDREN

FIG. 68. POSTER MADE BY UPPER-GRADE CHILDREN

FIG. 69. POSTER MADE BY UPPER-GRADE CHILDREN

FIG. 70. POSTER MADE BY UPPER-GRADE CHILDREN

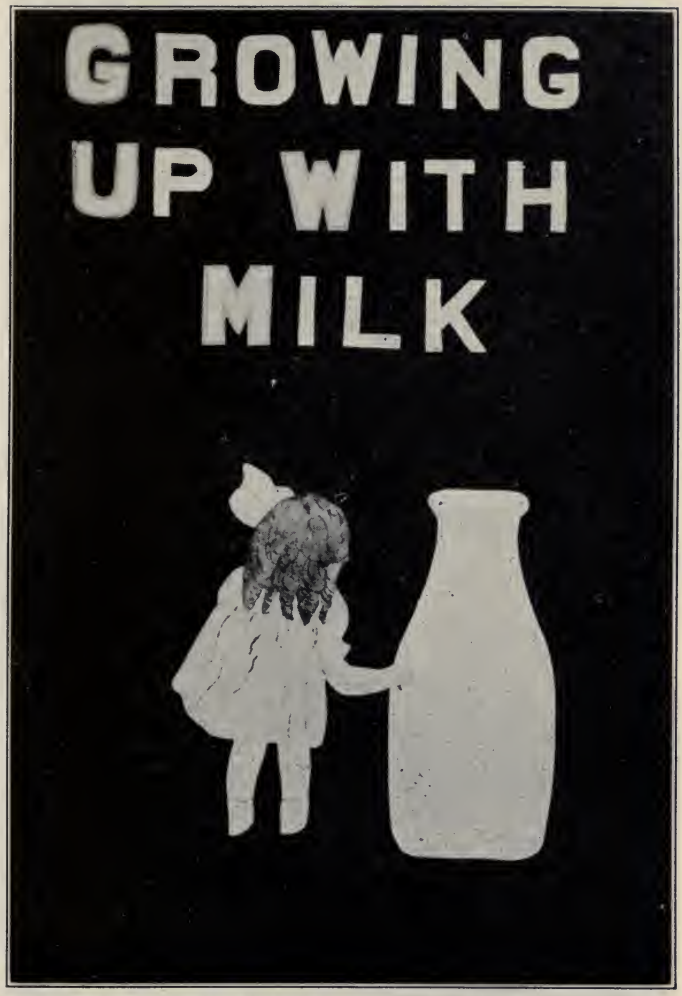

FIG. 71. POSTER MADE BY UPPER-GRADE CHILDREN

FIG. 72. POSTER MADE BY UPPER-GRADE CHILDREN

FIG. 73. POSTERS MADE BY CHILDREN

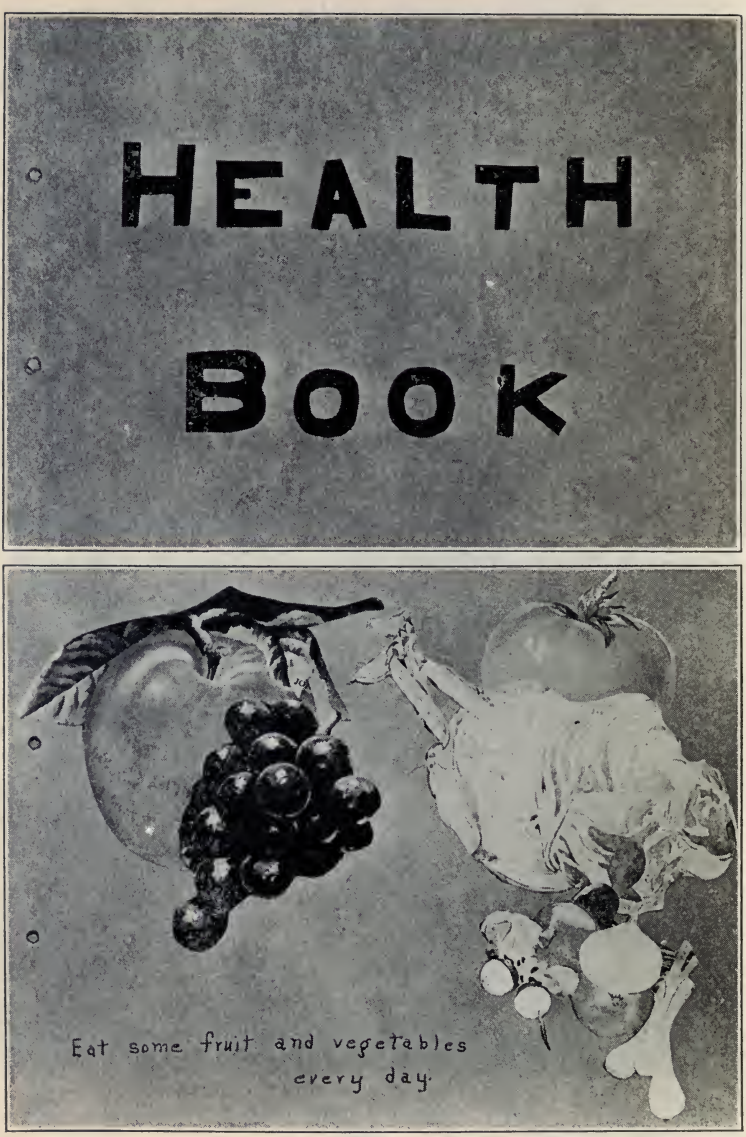

FIG. 74. COVER AND LEAF OF A HEALTH BOOK

FIG. 75. LEAVES FROM THE SAME HEALTH BOOK

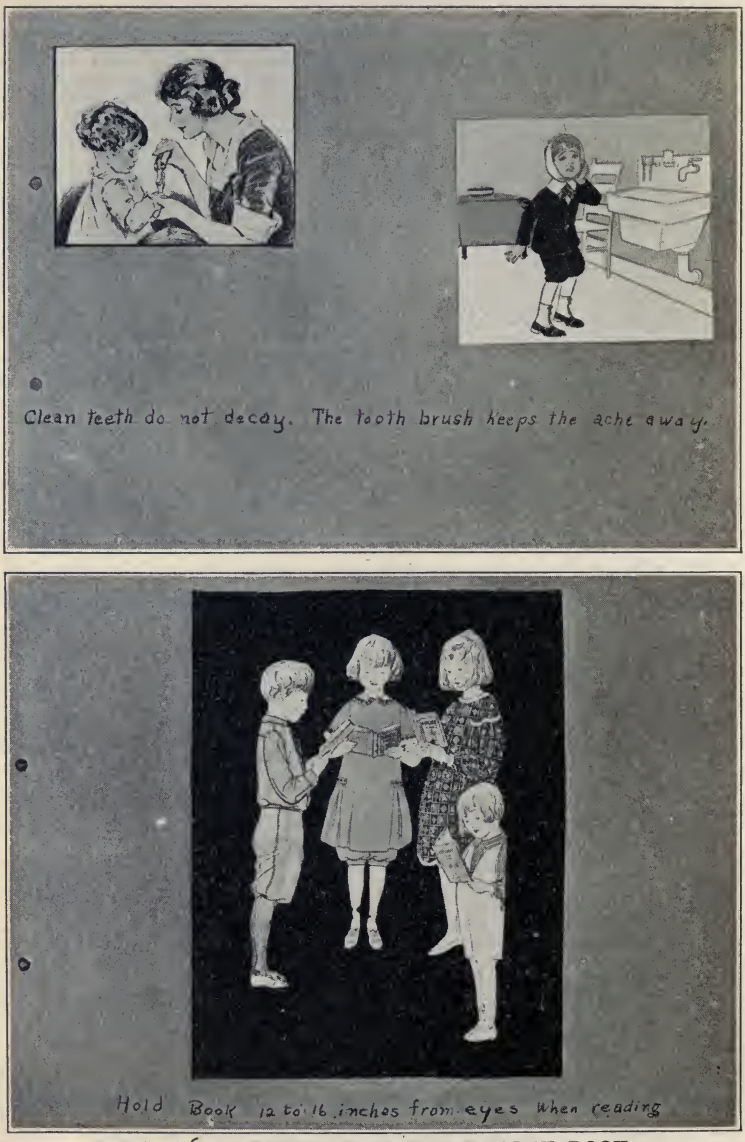

FIG. 76. LEAVES FROM THE HEALTH BOOK

HEALTH SONGS FOR THE LOWER GRADES

Soldiers for Health

(Tune: "*Comin' thru the Rye*")

If a lassie or a laddie
  Would keep well and strong,
If he'd be content and happy
  And would live for long,
Then each one must fill his chore card
  Showing chores well done,
For many Knights and Squires are needed
  'Ere the battle's won.

If a Modern Health Crusader
  Would be clean and neat,
He must keep in mind his toothbrush
  Make the germs retreat,
Wash his face, his hands, his fingers,
  Keep the nails all white.
Thus prepared he cannot fail
  To conquer in the fight.

—New Jersey Tuberculosis League

A Healthy Mother Goose

(Tune: "*Yankee Doodle*")

Little Bo-Peep takes ten hours' sleep
  From every night till morn.
Little Boy Blue sleeps ten hours, too,
  Before he blows his horn.

CHORUS:

But simple Simon sits up late,
And so 'tis plain to see
Why he is dull while they are bright
And happy as can be.

Little Jack Horner washed his hands
Before he ate his pie.
The little dog laughed to see such sport;
Old King Cole winked his eye.

CHORUS:

But soon they all will fall in line,
A banneret to win,
And Mother Goose herself will wear
A Health Crusader pin.

—IOWA TUBERCULOSIS ASSOCIATION

CARRY ME BACK TO HAPPY DREAMLAND

(TUNE: "*Carry Me Back to Ole Virginny*")

Carry me back to Happy Dreamland.
Come, Mr. Sandman, and take me there tonight.
Come, let me sleep and dream of the fairies
Till I am wakened by the early morning light.
Put out the lights and open the windows,
Let sweet fresh air bring pink cheeks and bright eyes.
Ten hours will guard and watch o'er my slumbers
And make me grow strong and healthy and wise.

CHORUS:

Carry me back to Happy Dreamland.
Come, Mr. Sandman, and help me to go to sleep.
Send fresh air fairies and ten restful hours
To guard my slumbers and aid my health to keep.

—NEW JERSEY TUBERCULOSIS LEAGUE

EXERCISE

(TUNE: "*Jingle Bells*")

Cheeks are all aglow;
Eyes are sparkling, too.
We're the ones who know
What exercise will do.
Joyously we shout
As out of doors we play,
If you would grow well and strong
That's the wisest way.

CHORUS:

Exercise, exercise,
Exercise and play.
Oh, what fun it is to be
Out of doors each day!
Exercise, exercise,
Exercise and play.
If you would grow well and strong
That's the wisest way.

It is well to know
All we're taught in school,
Knowledge found from books
And the golden rule.

But when playtime comes
Then our muscles grow,
And we learn the other things
That we need to know.

CHORUS:

Exercise, exercise,
Exercise and play,
That will teach us sportsmanship—
The spirit of fair play.
Exercise, exercise,
Exercise and play.
If you would grow well and strong
That's the wisest way.

—NEW JERSEY TUBERCULOSIS LEAGUE

A YANKEE DOODLE DIET

(TUNE: "*Yankee Doodle*")

A boy came to our class one day
And found that he was losing,
And there we told him how to gain
By proper diet choosing.

A bowl of cereal each morn,
Some vegetable for dinner,
Brown bread and butter at suppertime,
You'll soon be a star winner.

Johnny Jones, keep it up,
Johnny, you're a dandy,
Don't forget the milk and fruit
And leave alone the candy.

A Health Round

(Tune: "*Row, Row, Row Your Boat*")

Clean, clean, clean your teeth,
Clean them twice a day
Thoroughly, thoroughly, thoroughly, thoroughly,
That's the only way.

—New Jersey Tuberculosis League

Happy Third-Grade (Fourth-Grade) Boys (Girls)

(Tune: "*Three Blind Mice*"—*Sung as a round*)

See how we smile,
We brush our teeth each morning and night,
That's how we keep them so shining and white,
Did you ever see a lovelier sight
Than happy Third-Grade Boys?

—American Red Cross

HEALTH AND RECREATION[1]

I. *The history of recreation.* Golf, tennis, motoring, theaters, polo—all this is recreation and sounds so exceedingly modern that there is a tendency to think that only now in this twentieth century are we learning for the first time to play. But the truth of it all is that man has always been playing—recreating himself in various ways.

When archaeologists unearth the ruins of ancient Egypt and Babylonia, they find dolls, tops, rattles, and trinkets of pottery. Indeed the oldest civilizations of all—those of China, Korea, Peru, and that of the Aztecs—have left traces of games and pastimes in sculpture and drawing.

Were you a Spartan or a Roman boy or a Persian in the height of your nation's history, much of your time would be spent in warlike play and your country would see to it that you *did* engage in this form of pastime. If you were an Athenian lad, you would play, too, but not the warlike games of your Spartan neighbors. Your play training would be for the bodily beauty and the development of the individual that the Athenian fathers delighted in calling "citizen." Our first written record of play and recreation is that given by Homer in his description of the funeral ceremonies that Achilles held in honor of Patroclus, his friend.

The play idea is as old as man. When the peoples of northern Europe—the Teutons—appear in history, they are shown spending their leisure hours in swimming, wrestling, horsemanship, foot racing, spear-throwing, broad and high jumping, and putting the stone. These sports continued through the Middle Ages, and then came the period of chivalry when

[1] Courtesy of the Metropolitan Life Insurance Company.

lands, titles, and love had to be fought for by courteous knights. The tournament was the all-important happening of the social season, and "all the world" clamored to attend it.

But a time came when play was frowned upon, and this happened during the Dark Ages. We all know very well the attitude of our Puritan fathers toward play and recreation, but happily they and their descendants did not persist with their denunciation of play; we not only find the church of today encouraging recreation, but actually affording opportunities for wholesome pastimes for the youth of our country. And interestingly enough, the city of Boston itself, the home of the Puritan fathers, became the pioneer of the recreation movement of this country, as we shall later see.

The fact is that the recreation movement has had a conscious spread all over the world, fostered and encouraged by the governments themselves as well as the strongest national groups in each country; and some men and women are giving their whole lives toward promoting this work. Just for a moment let us glance at various countries to see the form of recreation in which each is most interested. We must, of course, remember that the conditions and climate of each country affect the nature of their play life. In the colder regions of Norway and Sweden, the people joy in tobogganing and snowshoeing and indoor gymnastics; in Germany, there is the Turnverein or athletic association. In the temperate climates of England and America, vigorous out-of-door games are popular. The two-inch headlines in our morning and evening newspapers testify to the national interest both countries show in their sports—rugby, soccer, cricket, tennis, and la crosse in England, and football, basketball, baseball, golf, tennis, and swimming in the United States. Interestingly enough, France showed no interest in organized play until the World War, when they caught the play spirit from the

Americans. As for the Orient—the countries of China, Japan, the Philippines, and Hawaii—baseball, volley ball, and track teams are all popular. The same is true of the countries of South America. It is the traveler and the missionary from England and America who have brought these games to the South and the East.

In a word, the whole world is playing and each nation seems to have developed a conscious play program that is best suited for recreating the individuals within the country. But again it must be remembered that recreation is not a new idea. Tennis dates back to the Roman Empire and polo to Persia as early as 600 B.C.

II. *Recreation—a physical need for man.* It is true, however, that recreation is receiving a new emphasis today, and probably will be increasingly stressed as our lives become more and more complex and our society more civilized. This is because there is a very definite physical need for recreation for the man and woman of the twentieth century.

Let us study this for a moment and we shall see why the average man and woman of the 1920's needs to give more consideration to play and recreation than his forebears of the 1720's or even the 1820's.

Two hundred years ago man engaged in out-of-door work, whether he was the employer or the employed. Those were the good old pioneer days when our settler ancestors fought the Indians, felled trees, cleared lands, and dug stumps. People had to, to live. If our ancestors had not yet happened to set foot on this soil, they were engaged in a similar out-of-door life in the countries of their birth. Man worked with his body as well as with his mind, and his muscles were brought into play—back muscles, arm muscles, leg muscles, for the whole job had to be done and done well either by him or under his guidance.

And the children? They walked to school or to town or to the old swimming hole or river.

But in the later years of the eighteenth century we find the Industrial Revolution overtaking man, and a new order of things developing. Machines now do much of the lifting, sawing, and pulling that man relied upon his own muscles to take care of. More than that, man no longer makes the whole shoe himself, but cuts the leather for it only, while a fellow workman shapes it, another assembles it, another finishes it. In short, the age of specialization, with its accompanying deadly monotony, has descended upon us in the midst of our industrial life.

And the children of today have little or none of the chores they used to have. They ride to school in automobiles or street cars, or perhaps the school is just around the corner.

The mother does not need to beat rugs, spin, wash, iron, as she used to. Electrical devices are saving her these big muscle tasks.

The 1920's are doubtless wonderful years and none of us would change them, but nevertheless it is true that there is a real strain on the life of man occasioned by this modern environment. And the solution to all this, our best physiologists, physicians, and psychologists tell us, is play—a new emphasis on recreation. We need it to supply an all-around use of muscles in a normal way and to overcome the weariness, both mental and physical, that is a result of our modern method of work and living.

Some one has stated it very well when he said, "Our minds and bodies are homesick in this modern world. Recreation is the curing of this homesickness."

Factory managers know the truth of this fact, for we find organizations like the Goodyear Rubber Company of Akron, Ohio, and the Carnegie Steel Foundation of Pittsburgh, Pennsylvania, engaging a well-paid staff of play leaders.

Department stores and other businesses such as Wanamaker's, Macy's, and the Metropolitan Life Insurance Company stress the importance of recreation and encourage their employees to take part in group contests in various sports, furnishing, in many instances, play directors and fully equipped gymnasiums.

Cities, too, have come to appreciate the need for recreation facilities. In 1923 we find seventeen cities voting $10,399,661.52 in bond issues for recreational purposes, but this national movement for community recreation will hold our attention later on.

III. *Forms of recreation for the individual.* Knowing as we do that there is more need today than ever before for giving thought to recreation for our leisure hours, we now want to consider the form that our recreation should take.

The baby up to six years enjoys rolling, kicking, jumping, running, building blocks, digging in the sand, playing in the swings, and wading in shallow water, often to the great concern of the grown-ups. But the baby experiences a real physical need for this varied and rapid activity and this is the way the body develops.

The child from six to twelve is in the "Big Injun" period, as Joseph Lee says in his book *Play in Education*. The child is an individualist at this time, when games of tag, individual contests in running, jumping, swimming, and ball games are popular. It is through this kind of recreation that the child acquires muscular control.

The adolescent period is covered in the years from twelve to eighteen when team play is the play of the hour. This is a period of development of loyalty, self-sacrifice, and heroism. Not only is the boy growing in a healthy way through play, but the boy or girl of these years is also acquiring greater mental health.

After eighteen, we say that maturity has been reached. Men and women are "most fit" in the years from eighteen to forty. This is the time when astonishing athletic records are won by many. But strangely enough, although the body is strongest at this time, there is a definite tendency on the part of the large majority of men and women to forego active recreation and to take part only in amusements of a passive nature. The result is weakness and loss of health and efficiency.

Leaders in the health movement today are urging that each individual go to a physician for a health examination once each year, and, in addition to a thorough physical overhauling, the doctor will prescribe the form of exercise and recreation most needed by each individual. It is best to leave it to a physician to tell you how many games of tennis you may play, how many holes of golf you may make, how long your daily walk should be, your drives along the motor roads, and your horseback riding. A wise injunction is given by Bowen and Mitchell in their very excellent book, *The Theory of Organized Play*, when they say:

> Busy men and women who must snatch their exercise when they may and who are not in the physical condition necessary to take part in rugged competition with safety and comfort, must look to the milder recreations as their proper field of play. They should be willing to enjoy the more strenuous sports by watching performances of younger players.

While we are speaking of play and recreation for the individual man and woman, we cannot resist mentioning the fact that even commercial moving-picture producers are considering this subject of health and exercise so important that they are undertaking the making and distributing of pictures showing how folks should get up in the morning and get into trim for the day's activities. Pathé is just now releasing a series of exercises that Dr. C. Ward Crampton has described in his book which would be well worth everyone's reading—namely,

Physical Exercises for Daily Use. In the moving-picture houses where the Pathé films are displayed, one exercise will be shown on the screen each week for seven successive weeks. The interest of Pathé is largely an outgrowth of the work of the Congress of Mothers and Parent-Teachers' Association Physical Education Convention.

And what are the results of play and recreation for the individual? Pleasure, personal preparedness, strength, speed, endurance, beauty of form, mental relaxation which makes possible mental growth—all these are the reward of the man or woman who gives thought to that third of his day when he is not working and is not sleeping.

IV. *Family recreation.* But the subject of recreation cannot be concluded with a discussion of the play life of the individual. There must also be a family play life. We recall here the truth of the saying, "The family that *plays* together *stays* together." Playing together in the home with the home folks is occupying columns of the women's pages in the newspapers and periodicals, and preachers are urging family recreation from the pulpits. Books are published on family recreation, but perhaps one of the best suggestions that can be offered the club woman is that she secure the pamphlet on "Home Play" that has been published by the Public Recreation Board of Fort Worth, Texas, and which is being distributed for 10 cents by the Playground and Recreation Association of America, 315 Fourth Avenue, New York City. This booklet contains practical play suggestions for any and every home.

V. *Community recreation.* The community is just a large family, and we must remember that if the best way to attain individual health is through exercise and play, the best way to attain community health is in the same way. Therefore each of us must give earnest thought to our own community recreational program.

The recreation program movement has received tremendous impetus during the last twenty years. Although it is true that the New England fathers were wise enough to establish the Boston Commons in 1634, still it is not for this that Boston is given credit for pioneering in the idea of community recreational programs. It is for the "sand gardens" established in 1885 that Boston receives this credit. From that time on, we find cities opening up playgrounds for the sake of the children and their mothers.

In June, 1906, the Playground and Recreation Association of America came into being, and then the emphasis was given to year-round recreation systems on a permanent basis, supported by funds raised through taxation and administered by municipal departments under the direction of paid superintendents of recreation. The play life they urge is not for the child alone, but for everyone.

We cannot resist the temptation to quote Robert Louis Stevenson at this point.

> Happy hearts and happy faces,
> Happy play in grassy places;
> That was how in ancient ages
> Children grew to kings and sages.

The modern recreation movement, however, deals as much with kings and sages as with the children.

Until the days of the Great War, the Playground and Recreation Association of America had been extending the community recreational idea far and wide. Each year found a greater number of cities voting taxes for play facilities. The city fathers were convinced that this was needed for the physical and mental health of the individuals in the community. It is not at all surprising, then, that in the days of mobilization for the World War we should find the Playground and Recreation Association of America suggesting to the National Council of Defense that the War Camp Community Service be formed

to provide recreational opportunities for our soldiers in the drab life of camp days. Little need be said of the tremendous contribution made by the War Camp Community Service to the country, insuring mental, physical, and moral health to many of our men in arms. The foremost women in our cities and towns helped make the work of the War Camp Community Service the success it was.

Since the war, the Playground and Recreation Association of America has vigorously gone forward with its work under an enlarged plan and with increased personnel.

And now, following the experiences of the war period, new possibilities in community recreation have been discovered. One result has been that communities are more willing to pool their recreational facilities for the common good of all.

Perhaps we should give our attention at this time to the forms which community recreation may take. They are many and varied—community singing, band concerts, community concerts and musicales, community lectures and entertainments, community drama and pageants, special holiday celebrations, community picnics, athletic contests or games, dances—all developed through the organization of neighborhood groups.

In 1923, approximately three hundred cities conducted year-round recreation in charge of workers employed the year round.

Perhaps at this point it is appropriate to suggest that the women's club, as a civic group honestly concerned for the welfare of the community, may legitimately devote some time and earnest study to the recreational opportunities offered within the community. This is so closely related to community health that the local health officer will doubtless welcome whatever coöperation the women's club may be able to give him in connection with this important question of recreation.

Does it pay the community? you ask. Let us just take the case of St. Paul, Minnesota, where there was no doubt that the community program paid, if only for the children of the city. It was found by careful study that most of the delinquent children that appeared in the St. Paul Juvenile Court came from a certain congested district of the city. A social center was opened in this district and in a year the delinquency was reported to have been reduced 50 per cent.

The trumpet call for increased emphasis on recreation came from President Coolidge when he summoned the leaders of the movement to a national conference in Washington. This was held on May 22, 1924. We can do no better than to quote from the President's address:

> With the development of our industrial and commercial life, there are more and more who are engaged in purely clerical activities. All of this makes it more necessary than ever that we should stimulate every possible interest in out-of-door health-giving recreation.

And in concluding this paper on health and recreation we can find no more fitting message than that which was expressed by the President in his closing words on this occasion. The desire to which he gave voice should be the desire shared by each one of us.

> I want to see all Americans have a reasonable amount of leisure. Then I want to see them educated to use such leisure for their own enjoyment and betterment, and the strengthening of the quality of their citizenship. We can go a long way in that direction by getting them out of doors and really interested in nature. We can make still further progress by engaging them in games and sports. Our country is a land of cultured men and women. It is a land of agriculture, of industries, of schools, and of places of religious worship. It is a land of varied climes and scenery, of mountain and plain, of lake and river. It is the American heritage. We must make it a land of vision, a land of work, of sincere striving for the good, but we must add to all these, in order to round out the full stature of the people, an ample effort to make it a land of wholesome enjoyment and perennial gladness.

PHYSICAL TRAINING OUTLINE[1]

All physical education should have in mind three things:

1. Attention
2. Posture
3. A coördination of muscles

In "attention" be sure that you have the absolute attention of both mind and body, and also that you do not attempt to hold attention too long but give some relaxation.

Posture should be watched at all times, both sitting and standing. In standing, feet should be parallel, about three inches apart, knees straight without stiffness, hips held back, abdomen in, chest up, and chin up, arms hanging naturally at sides, weight resting on the balls of the feet, heels lightly touching the floor.

Coördination of muscles is the instant response of the muscles to the will of the mind and is best gotten by teaching from direction rather than imitation, except in the first and second grades.

In games be sure to foster the spirit of fair play. The most harmful factor in any game is lack of enforcement of rules, and the child who breaks the rules of the games with impunity will try to break the rules of the community. He or she becomes lawless.

During all recesses and physical training periods, except when the weather is very inclement, teachers should have the windows open to the widest extent. Whenever possible, exercise should be held out of doors.

[1] By the courtesy of Ira A. Jones, director of athletics.

SUGGESTIONS TO TEACHERS

Commands. There are two kinds of commands: (1) the preparatory commands, which tell what is to be done, and (2) the command of execution, which starts the action. The preparatory commands are written in ordinary type, and the commands of execution in small capitals. There should be long enough pause between the preparatory command and the command of execution for the pupil to understand what he is to do. The tone of command should be distinct and its loudness modified to the size of the class. Do not shout. Indifferent commands produce indifferent results.

Marching. The tempo of the march should be about 128 steps per minute. Arms should swing free at sides and should be used as an aid in walking. Chest up, chin up, and eyes at the top of the head of the one in front.

Attention. Attention is the position described under posture in this outline.

At ease. Left foot carried directly to the side, feet about eighteen inches apart, weight resting equally on each foot and hands grasped behind back, meaning body at ease, mind at attention.

Rest. Either foot is kept in position, but the pupil may move in any direction and talk if he wishes.

Right face. Raise slightly the right toe and the left heel, push quickly with the left toe to the right and turn on the right heel 90 degrees. Immediately place the left heel beside the right. (Done in 2 counts.)

About face. Place the right toe in rear and to the left of the left heel, raise the left toe, turn about to the right. (180 degrees.)

EXERCISES FOR PRIMARY GRADES

LESSON NO. 1

1. ATTENTION! AT EASE! ATTENTION!
2. Feet—CLOSE! OPEN! (Repeat.)
3. Head backward—BEND! Head—RAISE!
4. Hands on hips—PLACE! Hands—DOWN!
5. Heels—RAISE! Heels—SINK!
6. Running—alternate rows face back of room; two rows run around one row of seats. Ready—GO! (Allow no racing.)
7. Breathe—IN! Breathe—OUT! (Blow out the candle.)
8. Game—Imitation. (Did You Ever See a Lassie?)

LESSON NO. 2

1. ATTENTION! Distance—TAKE!
2. Right (or left) foot forward—PLACE! Together—PLACE! (On count)
3. Head forward—BEND! Head—RAISE!
4. Hands on shoulders—PLACE! Downward—STRETCH! (On count)
5. Hands on hips—PLACE! Heels—RAISE! Heels—SINK! (On count) ATTENTION!
6. Marching to front of the room with knee raising.
7. Inhale and exhale. (Blow up a paper bag and "pop" it.)
8. Games—Cat and Rat; Crow Race.

LESSON NO. 3

1. ATTENTION!
2. Arms forward—RAISE! Arms—DOWN! (1—2, etc.)
3. Feet sideways—PLACE! (1—2) Feet together—PLACE! (1—2.)
4. Hands on hips—PLACE! Head left—BEND! Head—RAISE!
5. Body right (or left)—BEND! Body—RAISE!
6. Feet sideways—PLACE! Heels—RAISE! Heels—SINK! Feet together—PLACE!

7. Body forward—BEND! (Eyes front.) Body—RAISE! (1—2, etc.)
8. Arms outward—RAISE! (Inhale.) Arms—SINK! (Exhale.)
9. Games—Bean Bag Passing Race; Changing Seats.

LESSON NO. 4

1. ATTENTION! AT EASE! ATTENTION!
2. March. (Stress rhythm rather than step in this grade.)
3. Heels outward—MOVE! Together—PLACE!
4. Arms sideways—STRETCH! Head forward—BEND! Head—RAISE! Head backward—BEND! Head—RAISE! (4. counts) Arms—DOWN!
5. Hands on shoulders—PLACE! Arms sideways—STRETCH! Hands on shoulders—PLACE!
6. Body sideways (left or right)—BEND! Body—RAISE!
7. Hands on neck—PLACE! (Head up.) Knees half—BEND! Knees—STRETCH! (On count)
8. Inhale and exhale.
9. Game—Bean Bag Passing Race.

LESSON NO. 5

1. ATTENTION! AT EASE! ATTENTION!
2. Right (or left)—FACE!
3. Hands on shoulders—PLACE! Elbows forward—MOVE! Elbows backward—MOVE! Arms—DOWN!
4. Bend forward, touch your toes—BEND! Body—RAISE!
5. Left (or right) leg forward—RAISE! (Toes downward.) Leg—DOWN!
6. Skipping—Alternate rows face back of room, two rows skip around one row of seats. Ready—GO! (Aim for light skips.)
7. Inhale and exhale. (Make a feather fly.)
8. Game—Squat Tag.

LESSON NO. 6

1. ATTENTION!
2. One step forward—MARCH! (Left—right.) One step backward—MARCH! (Left—right.) (See that the child always starts with left foot. This is preparatory to "keeping step" while marching.)
3. Alternate heels—RAISE! (1—2.)
4. Arms overhead and clap hands—CLAP! Arms downward—STRETCH!
5. Hands on hips—PLACE! Body backward—BEND! Body—RAISE!
6. Body forward—BEND! Body—RAISE!
7. Hopping on left toe while right leg is raised sideways, toe pointing down—HOP! Change feet—HOP!
8. Inhale and exhale.
9. Game—Squirrel and Nut.

Reference: Jessie H. Bancroft, *Games for the Playground, Home, School, and Gymnasium.*

EXERCISES FOR INTERMEDIATE GRADES

Beginning in this grade boys and girls should be in separate rows for every lesson in Gymnastics.

LESSON NO. 1

1. ATTENTION! Marching or facings.
2. Arms forward—BEND! Arms sideways—FLING! Forward—BEND!
3. Same as 2 with heel raising.
4. Hands on hips—PLACE! Body backward—BEND! Body—RAISE!
5. Body left (or right)—TWIST! Body forward—TWIST!

6. Hands on hips—PLACE! Heels—RAISE! Arms forward stretch and knees—BEND! Hands on hips and knees—STRETCH! Heels—SINK!
7. Two rows run around one row of seats—RUN!
8. Breathing.
9. Games—Crossing the Brook; Blackboard Relay.

LESSON NO. 2

1. ATTENTION! Short command requiring quick response.
2. Hands on shoulders—PLACE! Arms forward—STRETCH! On shoulders—PLACE! Sideways—STRETCH! On shoulders—PLACE! POSITION!
3. Arms sideways—RAISE! Head forward—BEND! Head—RAISE! Head backward—BEND! Head—RAISE!
4. Arms to thrust—BEND! Forward—THRUST! To thrust—BEND! Sideways—THRUST! To thrust—BEND!
5. Hands on neck—PLACE! Body forward—BEND! Body—RAISE! Body backward—BEND! Body—RAISE! POSITION!
6. Arms sideways—RAISE! Touch the floor on right with right fingers—BEND! Body—RAISE! Same left—BEND! RAISE!
7. Arms forward—RAISE! and knees—BEND! Hands at sides and knees—STRETCH!
8. Hands on hips—PLACE! Left knee upward—BEND! Leg forward—STRETCH! Knee upward—BEND! Leg—SINK! Repeat slowly.
9. Same to right.
10. Arms sideways, upward—RAISE! (Inhale.) Arms sideways, downward. (Exhale.)
11. Game—The Hound and the Hare.

LESSON NO. 3

1. ATTENTION! About—FACE! About—FACE!
2. Left foot forward—PLACE! REPLACE! Left foot outward—PLACE! REPLACE! Same right.
3. Hands on hips—PLACE! Head left—TWIST! Forward—TWIST! Head right—TWIST! Forward—TWIST! Backward—BEND! Upward—RAISE!
4. Hands on shoulders—PLACE! Forward stretch and heels—RAISE! On shoulders and heels—SINK! Sideways stretch and heels—RAISE! On shoulders and heels—SINK!
5. Hands on hips—PLACE! Right knee upward—BEND! Downward—STRETCH! Left knee upward—BEND! Downward—STRETCH!
6. Left arm sideways and right arm upward—STRETCH! (1) CHANGE! (2) Downward—STRETCH!
7. Feet sideways—JUMP! Hands on hips—PLACE! Body backward—BEND! Body—RAISE! POSITION!
8. Hands on hips and feet sideways—JUMP! Body right—TWIST! Forward—TWIST! Body left—TWIST! Forward—TWIST!
9. In place—JUMP!
10. Left foot outward and hands on hips—PLACE! Heels—RAISE! SINK! Feet—CHANGE! (1—2) Heels—RAISE! SINK! POSITION!
11. Breathing.

First two weeks' review work of Grade 3A.

LESSON NO. 4

1. ATTENTION! Countermarch—MARK TIME! LEFT! RIGHT! Etc.
2. Arms sideways—RAISE! Head right—BEND! Upward—RAISE! Left—BEND! Upward—RAISE! Arms—SINK!

3. Arms forward—BEND! Sideways—FLING! (Repeat vigorously and in quick time.)
4. Hands on neck—PLACE! Heels—RAISE! Knees—BEND! Knees—STRETCH! BEND! STRETCH! Heels—SINK! POSITION!
5. Hands on hips and feet sideways—PLACE! ONE! TWO! Body forward—BEND! Body—RAISE! POSITION!
6. Hands on neck and left foot forward—PLACE! Body—backward—BEND! Body—RAISE! Feet—CHANGE! Repeat. (Weight of body evenly on both legs.)
7. Hands on neck—PLACE! Body left—BEND! Body—RAISE! Body right—BEND! Body—RAISE!
8. Quick time in place—MARCH! LEFT! RIGHT! LEFT! RIGHT! Class—HALT! ONE! TWO!
9. Hands on shoulders—PLACE! Arms upward stretch and heels—RAISE! Hands on shoulders and heels—SINK! Repeat in slow time.
10. Arms sideways—RAISE! Arms upward—RAISE! (Inhale.) Arms sideways—SINK! (Exhale.) Arms—DOWN!
11. Game—Last Man.

LESSON NO. 5

1. ATTENTION! Left—FACE! Sideways right—MARCH! ONE! Two! etc. Return.
2. Head backward—BEND! Head—RAISE! Head forward—BEND! Head—RAISE! Head left—TWIST! Forward—TWIST! Head right—TWIST! Forward—TWIST!
3. Hands on shoulders—PLACE! Arms upward—STRETCH! Shoulders—PLACE! Forward—STRETCH! Shoulders—PLACE! Sideways—STRETCH! Shoulders—PLACE! (6 counts) Go!
4. Arms to thrust and feet sideways—JUMP! Bend forward, touch your toes—BEND! Arms to thrust and body—RAISE! Hands at sides and feet together—JUMP!

5. Hands on hips—PLACE! Heels—RAISE! Arms forward stretch and knees—BEND! Hands on hips and knees—STRETCH! Heels—SINK!
6. Arms sideways and heels—RAISE! Rotate arms backward—GO! (Body must not sway, keep knees stiff.)
7. Hands on hips—PLACE! Right leg forward—RAISE! Leg—SINK! Leg sideways—RAISE! Leg—SINK!
8. Same with left leg.
9. Arms forward, upward, and feet sideways—JUMP! Body—RAISE! Body left—BEND! Body—RAISE! POSITION! JUMP!
10. Forearms up ready to run—GO! Two rows run around one row of seats.
11. Breathing.
12. Games—Automobile Race; Blackboard Relay.

LESSON NO. 6

1. ATTENTION! Left—FACE! One step left—MARCH! About—FACE! One step left—MARCH! Left—FACE!
2. Arms forward, upward, and heels—RAISE! Arms sideways, downward, and heels—SINK!
3. Hands on hips—PLACE! Body forward—BEND! Body—RAISE! Body backward—BEND! Body—RAISE! Hands—DOWN!
4. Right arm upward—RAISE! Right arm downward, left arm upward—RAISE! (2 counts)
5. Same as Exercise 4, but raise right heel with right arm, left heel with left arm.
6. Arms sideways raise and feet sideways—JUMP! Touch floor on left with left fingers—BEND! Body—RAISE! Same to right—BEND! Body—RAISE! Position of attention—JUMP!

7. Feet sideways, hands on neck—PLACE! Body right—TWIST! Forward—TWIST! Left—TWIST! Forward—TWIST!
8. Arms sideways raise and knees—BEND! Hands at sides and knees—STRETCH!
9. In place—JUMP! ONE! TWO! THREE! FOUR! FIVE! SIX!
10. Hands on hips—PLACE! Left leg backward—RAISE! Leg—SINK! Right leg backward—RAISE! Leg—SINK!
11. Breathing.
12. Games—The Old Hen and the Fox; Tag the Wall Relay.

EXERCISES FOR GRAMMAR GRADES

LESSON NO. 1

1. ATTENTION! One step forward and about—FACE! (Left foot is placed forward and the whole body is turned 180 degrees to the right on the balls of both feet, and left foot is placed beside the right.) (On count—3 counts)
2. Hands on hips—PLACE! Left foot forward—PLACE! Heels—RAISE! Knees—BEND! STRETCH! SINK! Same with right foot forward. (On count—4 counts)
3. Hands on hips—PLACE! Body forward—BEND! Head to left—TWIST! Front—TWIST! Right—TWIST! Front TWIST! Body—RAISE!
4. Hands on shoulders and left foot forward—PLACE! Arms upward stretch and heels—RAISE! Hands on shoulders and heels—SINK! (On count—2 counts) Same with right foot forward.
5. Hands on hips—PLACE! Left knee upward—BEND! Left knee sideways—MOVE! (The leg is brought out to the left side as far as possible, still maintaining the right angle in hip and knee joints.) Knee forward—MOVE! Change—KNEES! The same.

6. Left foot backward and hands back of neck—PLACE! Body forward—BEND! RAISE! Backward—BEND! RAISE! (On count—4 counts) Feet change and same with right foot forward.
7. Feet sideways and hands back of neck—PLACE! Body to left—BEND! RAISE! To right—BEND! RAISE! (On count—4 counts)
8. Arms to thrust and feet sideways—HOP! Thrust arms between feet—THRUST! Arms to thrust and body—RAISE! To the position of attention—HOP! (On count—4 counts)
9. Arms sidewise raise and left leg sidewise—RAISE! Arms and legs—CHANGE! Continue.
10. Inhale and exhale.
11. Games.

LESSON NO. 2

1. ATTENTION! Right and left face and about face.
2. Arms forward—RAISE! Arms—SINK! Arms forward and upward—RAISE! Arms—SINK! (On count—4 counts)
3. Hands on hips—PLACE! Left knee upward—RAISE! Leg backward—STRETCH! BEND! STRETCH! etc. (Leg is stretched backward, knee straight, toe pointing back.) Same with right.
4. Hands on shoulders—PLACE! Arms in three directions—sidewise, forward, and upward—GO! (On count—6 counts)
5. Left hand on neck, right hand on hip—PLACE! Body to right—BEND! Body—RAISE! Hands—CHANGE! To left—BEND! RAISE!
6. Body forward—BEND! Body—RAISE! Body backward—BEND! Body—RAISE!
7. Running in place—RUN! (Knees well up, on toes.)

8. Arms sidewise—RAISE! Arms—CIRCLE! (Circle is from front to rear.)
9. Inhale and exhale.
10. Games.

LESSON NO. 3

1. ATTENTION! Right and left—FACE! About—FACE! Marching.
2. Arms sideways—RAISE! Head left—BEND! Head—RAISE! Right—BEND! Head—RAISE! (On count—4 counts)
3. Hands on shoulders—PLACE! Heels raise and arms upward—STRETCH! Hands on shoulders and heels—SINK! Arms sideways stretch and knees—BEND! Hands on shoulders and knees—STRETCH! (On count—4 counts)
4. Hands on neck—PLACE! Left knee upward—BEND! Forward—STRETCH! Sideways—MOVE! Forward—MOVE! Upward—BEND! Downward—STRETCH! (On count—6 counts) (Right knee same.)
5. Left arm forward and upward and right arm sideways—FLING! Arms—CHANGE! (On count—2 counts)
6. Hands on shoulders—PLACE! Body forward bend and arms upward—STRETCH! Hands on shoulders and body—RAISE! Arms upward stretch and body backward—BEND! Hands on shoulders and body—RAISE! (On count—4 counts)
7. Arms sideways—RAISE! Body left—TWIST! Forward—TWIST! Right—TWIST! Forward—TWIST! (On count—4 counts)
8. Running in place—RUN! (Raise knees high and run on toes.)
9. Mark time on toes—MARCH!
10. Inhale and exhale.
11. Games.

LESSON NO. 4

1. ATTENTION! Hands on shoulders—PLACE! Arms upward stretch and heels—RAISE! Hands on shoulders and heels—SINK! (On count—2 counts)
2. Arms forward and upward—RAISE! Body to right—TWIST! Front—TWIST! Left—TWIST! Front—TWIST! (On count—4 counts) (Hips held still, body twisting above the hips.)
3. Arms forward—RAISE! Arms sideways move and knees—BEND! Arms forward move and knees—STRETCH! Arms—DOWN! (On count—4 counts)
4. Hands back of neck—PLACE! Body forward—BEND! Body—RAISE! Body backward—BEND! Body—RAISE! (On count—4 counts) (Keep elbows well back.)
5. Arms to thrust—RAISE! Move shoulders forward, upward, backward, and down—BEGIN! (On count—4 counts)
6. Flex forearms vertically—RAISE! Extend arms upward—EXTEND! Arms to flex position—MOVE! Arms—DOWN! (On count—4 counts) (Flex forearms—palms are in, hands brought to in front of shoulders, elbows at sides.)
7. Bend to squatting position, hands on the floor—BEND! To position of attention—STAND! (On count—2 counts)
8. Raise arms forward and rise on toes—RAISE! Swing arms downward to the rear and knees—BEND! Swing arms to front horizontal, extend knees quickly to the "on toes position"—RAISE! To the position of attention—STAND! (On count—4 counts) (Preliminary jumping exercise.)
9. Mark time on toes—MARCH!
10. Inhale and exhale.
11. Games.

LESSON NO. 5

1. ATTENTION! Facings, marching, etc. (By this time all children should be able to march putting the left foot down on the left count.)
2. Hands back of neck—PLACE! Body forward—BEND! Head backward—BEND! Head—RAISE! Body—RAISE!
3. Left arm forward and upward and right arm sideways—FLING! Arms—DOWN! (Reverse.) (On count—4 counts)
4. Hands on neck—PLACE! Right knee upward—BEND! Knee outward—MOVE! Forward—MOVE! Downward—STRETCH! (On count—4 counts) (Same with right.)
5. Left arm sideways and right arm forward and upward—RAISE! Arms—CIRCLE! Arms—CHANGE! Arms—CIRCLE!
6. Arms forward and upward—RAISE! Body backward—BEND! Body—RAISE! Arms—DOWN! (On count—4 counts)
7. Hands on hips and feet sideways—PLACE! Arms sideways raise and body to left—BEND! Hands on hips and body—RAISE! Arms sideways stretch and body right—BEND! Hands on hips and body—RAISE! (On count—4 counts)
8. Hands on hips—PLACE! Left foot forward—RAISE! (Knee straight, toe pointing forward and downward.) Right heel—RAISE! Hop on right foot—HOP! (Hop about 16 counts, then change feet.)
9. Hands back of neck—PLACE! Heels—RAISE! Knees BEND! Knees—STRETCH! Heels—SINK! (On count—4 counts)
10. Inhale and exhale.
11. Games.

LESSON NO. 6

1. ATTENTION! Left face and one step to left—MARCH! Right face and one step forward—MARCH!

2. Hands on hips—PLACE! Left foot forward—LUNGE! (Left foot is carried forward about twice the distance of left foot forward place. All weight of the body carried on left foot. Left knee is bent, right knee straight.) Foot—REPLACE! Right foot forward—LUNGE! Foot—REPLACE!
3. Left foot forward and hands back of neck—PLACE! Body backward—BEND! Upward—RAISE! Feet—CHANGE! (The same.)
4. Hands on shoulders place and heels—RAISE! Arms upward stretch and knees—BEND! Hands on shoulders and knees—STRETCH! To position of attention—STAND! (On count—4 counts)
5. Hands on hips—PLACE! Left leg forward—RAISE! Sideways—MOVE! Forward—MOVE! Foot—DOWN! (On count—4 counts) (Same with right.)
6. Hands on shoulders—PLACE! Body forward—BEND! Arms upward—STRETCH! On shoulders—PLACE! Body—RAISE! (On count—4 counts)
7. Left foot forward place and right arm forward and upward—RAISE! Body to left—BEND! Upward—RAISE! Arms and feet—CHANGE! Body to left—BEND! Upward—RAISE! To the position of attention—STAND!
8. Turning 90 degrees to the left in place—JUMP! Same to the right—JUMP! (On count—4 counts) (All jumping to be done on toes.)
9. Hands on hips—PLACE! Left foot backward—RAISE! Right knee—BEND! Right knee—STRETCH! Left foot downward—PLACE! (On count—4 counts) (Keep body well up, backward leg straight, chest forward. Same with other foot.)
10. Inhale and exhale.
11. Games.

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American Child Health Association, 370 Seventh Avenue, New York City.

American Child Hygiene Association, 532 Seventh Street, N. W., Washington, D. C.

American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

American Posture League, 1 Madison Avenue, New York City.

American Red Cross, Washington, D. C.

Boy Scouts of America, 200 Fifth Avenue, New York City.

Bureau of Education, Department of the Interior, Washington, D. C.

Camp Fire Girls, 31 East 17th Street, New York City.

Children's Bureau, U. S. Department of Labor, Washington, D. C.

Metropolitan Life Insurance Company, New York City.

National Child Welfare Association, 70 Fifth Avenue, New York City.

National Committee for the Prevention of Blindness, 130 East 22d St., New York City.

National Dairy Council, 910 South Michigan Avenue, Chicago, Illinois.

National Health Council, 370 Seventh Avenue, New York City.

National Safety Council, 108 East Ohio Street, Chicago, Illinois.

National Tuberculosis Association, 370 Seventh Avenue, New York City.

Playground and Recreation Association of America, 315 Fourth Avenue, New York City.
The International Harvester Company, Chicago, Illinois.
The Rockefeller Foundation, 61 Broadway, New York City.
United States Bureau of Education, Washington, D. C.
United States Department of Agriculture, Washington, D. C.
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